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DONGGUAN
TONGKE
ELECTRONIC CO.,LTD.
东莞市通科电子有限公司



东莞市通科电子有限公司

DongguanTongkeElectronic Co.,Ltd

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东莞市通科电子有限公司是一家中外合资企业，成立于2010年。公司坐落于中国制造业名城东莞市大岭山镇，毗邻国家级高科技园松山湖。是一家专业从事半导体分立器件研发及制造的高新技术企业。公司总部—深圳市创科半导体有限公司，成立于2007年，位于中国深圳福田区。

通科工厂主要生产全系列二极管三极管，主要有DO-35、DO-41、Mini-melf(LL-34)、Melf(LL-41)、SOD-123、SOD-323、SOD-523、SOD-123FL、SOT-23、SOT-23-6、SMA、SMB、SMC、MBS、MBF等封装形式；产品有开关管1N4148W/LL4148/BAV21W，稳压管0.5W、1W全系列，触发管DB3，整流管1N4001-1N4007、M1-M7，肖特基B5817W-B5819W、SS12-SS34，快恢复管FR104-FR107、RS1M，整流桥MB6S-MB10S、MB6F-MB10F，三极管S8050、SS8050、S9013、MMBT3904等，公司采用进口设备ASM DB/WB，是一家双芯四芯ESD/TVS/MOS的优质封测厂家，可年产各类二极管三极管7500KK。产品广泛用于通讯、照明、电源、家电、计算机、汽车电子、智能仪表等各领域。公司所有产品均符合欧盟ROHS、REACH标准，可为顾客订做无卤素、特殊要求等产品。

公司以可靠的质量、雄厚的实力、合理的价格、优质的服务、得到多名全球500强企业的信赖支持。拥有具十年以上半导体行业经验的高级技术管理团队，严格执行ISO9001:2015质量管理体系。公司秉承“顾客至上、品质第一、科学创新、诚信为本”的经营理念。竭诚为顾客提供满意的产品和超值服务，为员工创造财富，实现梦想，为社会和谐做出贡献是通科的企业使命！



Dongguan Tongke Electronics Co., Ltd. is a Sino-foreign joint venture established in 2010. The company is located in Dalingshan Town, Dongguan City, a famous manufacturing city in China, adjacent to national high-tech park - Songshan Lake. It is a high-tech enterprise specializing in R&D and manufacturing of semiconductor discrete. The company's headquarters—Shenzhen Chuangke Semiconductor Co., Ltd., was established in 2007 and is located in Futian District, Shenzhen, China.

Tongke Factory mainly produces full range of diodes and triodes. Main packages are DO-35、DO-41、Mini-melf(LL-34)、Melf(LL-41)、SOD-123、SOD-323、SOD-523、SOD-123FL、SOT-23、SOT-23-6、SMA、SMB、SMC、MBS、MBF.

Products such as switching diodes 1N4148W/LL4148/BAV21W, zener diodes series of 0.5W, 1W, trigger diode DB3, rectifier diodes 1N4001-1N4007, M1-M7, Schottky diodes B5817W-B5819W, SS12-SS34, fast recovery diodes FR104-FR107, RS1M, transistor S8050, SS8050, S9013, MMBT3904 etc.

The company adopts advanced equipment ASM DB/WB. It is a high-quality assembly and testing manufacturer of dual-core four-core ESD/TVS/MOS. Its annual output of various types of diode and triodes is up to 7500KK.

Products are widely used in the fields of telecom, lighting, power supply, home appliances, computers, automotive electronics, smart meters and many more. All products are in line with EU ROHS and REACH standards, halogen free and customized products are available for customers.

With reliable quality, strong strength, reasonable price and excellent service, the company has been entrusted and associated by many global top 500. The senior technical management team with more than ten years of experience in semiconductor field, the company strictly implements the ISO9001:2015 quality management system. Companies adhering to the "customer first, quality first, scientific innovation, integrity-based" business philosophy. The company is dedicated to providing customers with satisfactory products and value-added services, creating wealth for employees, realizing their dreams. Contributing to social harmony is Tongke's mission!



办公环境/Office Environment



生产环境/Production Environment



无尘生产车间/Dust-free Workshop



质量管控/Quality Control



COMPANY QUALIFICATION | 公司资质



QUALITY CERTIFICATION | 质量证书



IATF16949-2016



IECQ-OC080000



AEC-Q101 Certificate

PATENT CERTIFICATE | 专利证书



CTK 通科电子
TONGKE ELECTRONIC

ENVIRONMENTAL CERTIFICATE | 环保证书



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固晶 Die Bonding



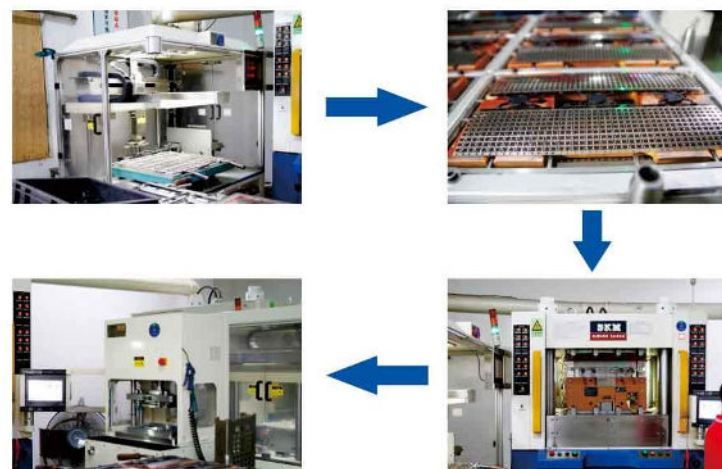
焊线 Wire Bonding



晶片推力测试 Wafer Thrust Testing



去胶/注塑 Molding/ Deflashing



SOD-123 SMD Plastic package
P0=500MW VF<0.9V

ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)				Maximum Reverse Current		Typical Temperature Coefficient @ I _{ZTC}		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{0T} @I _{ZT}	Z _{0K} @I _{ZK}	I _{ZK}	I _R	V _R	mV/°C			
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	mA	
BZT52B2V4	2WX	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0	5	
BZT52B2V7	2W1	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0	5	
BZT52B3V0	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5	
BZT52B3V3	2W3	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0	5	
BZT52B3V6	2W4	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0	5	
BZT52B3V9	2W5	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52B4V3	2W6	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52B4V7	2W7	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2	5	
BZT52B5V1	2W8	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2	5	
BZT52B5V6	2W9	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5	5	
BZT52B6V2	2WA	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7	5	
BZT52B6V8	2WB	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5	5	
BZT52B7V5	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5	
BZT52B8V2	2WD	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2	5	
BZT52B9V1	2WE	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0	5	
BZT52B10	2WF	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0	5	
BZT52B11	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5	
BZT52B12	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5	
BZT52B13	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5	
BZT52B15	2WJ	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0	5	
BZT52B16	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5	
BZT52B18	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5	
BZT52B20	2WM	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0	5	
BZT52B22	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5	
BZT52B24	2WO	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0	5	
BZT52B27	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2	
BZT52B30	2WQ	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4	2	
BZT52B33	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2	
BZT52B36	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2	
BZT52B39	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2	
BZT52B43	2WU	43	41.16	42.84	2	130	350	0.5	0.1	29.4	36.4	45.2	2	

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
2. Short duration test pulse used to minimize self-heating effect
3. f = 1kHz



SOD-123 SMD Plastic package
P0=500MW VF<0.9V

ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)				Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I _{ZTC}		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{0T} @I _{ZT}	Z _{0K} @I _{ZK}	I _{ZK}	I _R	V _R	mV/°C			
		Nom(V)	Min(V)	Max(V)							mA	Ω	mA	
BZT52C2V4	WX	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0	5	
BZT52C2V7	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5	
BZT52C3V0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5	
BZT52C3V3	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5	
BZT52C3V6	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5	
BZT52C3V9	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52C4V3	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52C4V7	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5	
BZT52C5V1	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5	
BZT52C5V6	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5	
BZT52C6V2	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5	
BZT52C6V8	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5	
BZT52C7V5	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5	
BZT52C8V2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5	
BZT52C9V1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5	
BZT52C10	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5	
BZT52C11	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5	
BZT52C12	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5	
BZT52C13	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5	
BZT52C15	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5	
BZT52C16	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5	
BZT52C18	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5	
BZT52C20	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5	
BZT52C22	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5	
BZT52C24	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5	
BZT52C27	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2	
BZT52C30	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2	
BZT52C33	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2	
BZT52C36	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2	
BZT52C39	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2	
BZT52C43	WU	43	40.0	46.0	5	100	700	1.0	0.1	32	10.0	12.0	5	

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
2. Short duration test pulse used to minimize self-heating effect
3. f = 1kHz



SOD-323 SMD Plastic package
P0=200MW VF<0.9V

ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)				Maximum Reverse Current		Typical Temperature Coefficient @ I _{ZTC}		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R	mV/°C			
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	μA	V	Min	Max	mA		
BZT52B2V4S	2WX	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0	5	
BZT52B2V7S	2W1	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0	5	
BZT52B3V0S	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5	
BZT52B3V3S	2W3	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0	5	
BZT52B3V6S	2W4	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0	5	
BZT52B3V9S	2W5	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52B4V3S	2W6	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52B4V7S	2W7	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2	5	
BZT52B5V1S	2W8	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2	5	
BZT52B5V6S	2W9	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5	5	
BZT52B6V2S	2WA	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7	5	
BZT52B6V8S	2WB	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5	5	
BZT52B7V5S	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5	
BZT52B8V2S	2WD	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2	5	
BZT52B9V1S	2WE	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0	5	
BZT52B10S	2WF	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0	5	
BZT52B11S	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5	
BZT52B12S	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5	
BZT52B13S	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5	
BZT52B15S	2WJ	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0	5	
BZT52B16S	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5	
BZT52B18S	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5	
BZT52B20S	2WM	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0	5	
BZT52B22S	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5	
BZT52B24S	2WO	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0	5	
BZT52B27S	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2	
BZT52B30S	2WQ	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4	2	
BZT52B33S	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2	
BZT52B36S	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2	
BZT52B39S	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2	

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.

SOD-323 SMD Plastic package
P0=200MW VF<0.9V

ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

TYPE	Marking	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)				Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @I _{ZTC} mV/°C		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{ET} @I _{ZT}	Z _{OK} @I _{ZK}	I _{ZK}	I _R	V _R	Min	Max	mA	
		Nom(V)	Min(V)	Max(V)	(mA)	Ω	(mA)	μA	V					
BZT52C2V4S	WX	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0	5	
BZT52C2V7S	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5	
BZT52C3V0S	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5	
BZT52C3V3S	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5	
BZT52C3V6S	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5	
BZT52C3V9S	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52C4V3S	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5	
BZT52C4V7S	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5	
BZT52C5V1S	W8	5.1	4.8	5.4	5	80	480	1.0	2	2.0	-2.7	1.2	5	
BZT52C5V6S	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2	2.5	5	
BZT52C6V2S	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5	
BZT52C6V8S	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5	
BZT52C7V5S	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5	
BZT52C8V2S	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5	
BZT52C9V1S	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5	
BZT52C10S	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5	
BZT52C11S	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5	
BZT52C12S	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5	
BZT52C13S	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5	
BZT52C15S	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13	5	
BZT52C16S	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14	5	
BZT52C18S	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16	5	
BZT52C20S	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5	
BZT52C22S	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5	
BZT52C24S	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5	
BZT52C27S	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2	
BZT52C30S	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2	
BZT52C33S	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2	
BZT52C36S	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2	
BZT52C39S	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2	
BZT52C43S	WU	43	40.0	46.0	2	100	700	1	0.1	32	10	12	5	

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.



稳压二极管
Zener Diode

ZMM1-ZMM75

LL-34 (Minimelf) Glass SMD package
P0=500MW VF<1.0V

ELECTRICAL CHARACTERISTICS

Characteristics at $T_a = 25^\circ\text{C}$

Type	Zener Voltage Range ⁽¹⁾		Dynamic Resistance			Reverse Leakage Current			Temp. Coefficient of Zener Voltage
	V_{Znom} (V)	V_{ZT} (V)	at I_{ZT} (mA)	Z_{ZT} Max. (Ω)	Z_{ZK} Max. (Ω)	at I_{ZK} (mA)	$T_a = 25^\circ\text{C}$ Max. (μA)	$T_a = 125^\circ\text{C}$ Max. (μA)	
ZMM1 ⁽²⁾	0.75	0.7...0.8	5	8	50	1	-	-	-0.26...-0.23
ZMM2V0	2	1.8...2.15	5	85	600	1	100	200	-0.09...-0.06
ZMM2V2	2.2	2.08...2.33	5	85	600	1	75	160	-0.09...-0.06
ZMM2V4	2.4	2.28...2.56	5	85	600	1	50	100	-0.09...-0.06
ZMM2V7	2.7	2.5...2.9	5	85	600	1	10	50	-0.09...-0.06
ZMM3V0	3	2.8...3.2	5	85	600	1	4	40	-0.08...-0.05
ZMM3V3	3.3	3.1...3.5	5	85	600	1	2	40	-0.08...-0.05
ZMM3V6	3.6	3.4...3.8	5	85	600	1	2	40	-0.08...-0.05
ZMM3V9	3.9	3.7...4.1	5	85	600	1	2	40	-0.08...-0.05
ZMM4V3	4.3	4...4.6	5	75	600	1	1	20	-0.06...-0.03
ZMM4V7	4.7	4.4...5	5	60	600	1	0.5	10	-0.05...+0.02
ZMM5V1	5.1	4.8...5.4	5	35	550	1	0.1	2	-0.02...+0.02
ZMM5V6	5.6	5.2...6	5	25	450	1	0.1	2	-0.05...+0.05
ZMM6V2	6.2	5.8...6.6	5	10	200	1	0.1	2	0.03...0.06
ZMM6V8	6.8	6.4...7.2	5	8	150	1	0.1	2	0.03...0.07
ZMM7V5	7.5	7...7.9	5	7	50	1	0.1	2	0.03...0.07
ZMM8V2	8.2	7.7...8.7	5	7	50	1	0.1	2	0.03...0.08
ZMM9V1	9.1	8.5...9.6	5	10	50	1	0.1	2	0.03...0.09
ZMM10	10	9.4...10.6	5	15	70	1	0.1	2	0.03...0.1
ZMM11	11	10.4...11.6	5	20	70	1	0.1	2	0.03...0.11
ZMM12	12	11.4...12.7	5	20	90	1	0.1	2	0.03...0.11
ZMM13	13	12.4...14.1	5	26	110	1	0.1	2	0.03...0.11
ZMM15	15	13.8...15.6	5	30	110	1	0.1	2	0.03...0.11
ZMM16	16	15.3...17.1	5	40	170	1	0.1	2	0.03...0.11
ZMM18	18	16.8...19.1	5	50	170	1	0.1	2	0.03...0.11
ZMM20	20	18.8...21.2	5	55	220	1	0.1	2	0.03...0.11
ZMM22	22	20.8...23.3	5	55	220	1	0.1	2	0.04...0.12
ZMM24	24	22.8...25.6	5	80	220	1	0.1	2	0.04...0.12
ZMM27	27	25.1...28.9	5	80	220	1	0.1	2	0.04...0.12
ZMM30	30	28...32	5	80	220	1	0.1	2	0.04...0.12
ZMM33	33	31...35	5	80	220	1	0.1	2	0.04...0.12
ZMM36	36	34...38	5	80	220	1	0.1	2	0.04...0.12
ZMM39	39	37...41	2.5	90	500	0.5	0.1	5	0.04...0.12
ZMM43	43	40...46	2.5	90	500	0.5	0.1	5	0.04...0.12
ZMM47	47	44...50	2.5	110	600	0.5	0.1	5	0.04...0.12
ZMM51	51	48...54	2.5	125	700	0.5	0.1	10	0.04...0.12
ZMM56	56	52...60	2.5	135	700	0.5	0.1	10	0.04...0.12
ZMM62	62	58...66	2.5	150	1000	0.5	0.1	10	0.04...0.12
ZMM68	68	64...72	2.5	200	1000	0.5	0.1	10	0.04...0.12
ZMM75	75	70...79	2.5	250	1000	0.5	0.1	10	0.04...0.12

(1) Tested with pulses $t_p = 20$ ms.

(2) The ZMM1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.



稳压二极管
Zener Diode

ZM4728-ZM4761

LL-41 (melf) Glass SMD package
P0=1000MW VF<1.2V

ELECTRICAL CHARACTERISTICS

Characteristics at $T_a = 25^\circ\text{C}$

Type	Zener Voltage ⁽¹⁾		Dynamic Resistance ⁽¹⁾			Reverse Current		Maximum Surge Current ⁽²⁾ at $T_a = 25^\circ\text{C}$ I_{ZSM} (mA)	Maximum Regulator Current ⁽²⁾ I_{ZM} (mA)
	V_{Znom} (V)	at I_{ZT} (mA)	Z_{ZT} Max. (Ω)	Z_{ZK} Max. (Ω)	at I_{ZK} (mA)	I_R Max. (μA)	at V_R (V)		
ZM4728	3.3	76	10	400	1	150	1	1375	275
ZM4729	3.6	69	10	400	1	100	1	1260	252
ZM4730	3.9	64	9	400	1	100	1	1190	234
ZM4731	4.3	58	9	400	1	50	1	1070	217
ZM4732	4.7	53	8	500	1	10	1	970	193
ZM4733	5.1	49	7	550	1	10	1	890	178
ZM4734	5.6	45	5	600	1	10	2	810	162
ZM4735	6.2	41	2	700	1	10	3	730	146
ZM4736	6.8	37	3.5	700	1	10	4	660	133
ZM4737	7.5	34	4	700	0.5	10	5	605	121
ZM4738	8.2	31	4.5	700	0.5	10	6	550	110
ZM4739	9.1	28	5	700	0.5	10	7	500	100
ZM4740	10	25	7	700	0.25	10	7.6	454	91
ZM4741	11	23	8	700	0.25	5	8.4	414	83
ZM4742	12	21	9	700	0.25	5	9.1	380	76
ZM4743	13	19	10	700	0.25	5	9.9	344	69
ZM4744	15	17	14	700	0.25	5	11.4	304	61
ZM4745	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746	18	14	20	750	0.25	5	13.7	250	50
ZM4747	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752	33	7.5	45	1000	0.25	5	25.1	135	27
ZM4753	36	7	50	1000	0.25	5	27.4	125	25
ZM4754	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755	43	6	70	1500	0.25	5	32.7	110	22
ZM4756	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757	51	5	95	1500	0.25	5	38.8	90	18
ZM4758	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759	62	4	125	2000	0.25	5	47.1	70	14
ZM4760	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761	75	3.3	175	2000	0.25	5	56	60	12

(1) The dynamic resistance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} . Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

(2) Valid provided that electrodes are kept at ambient temperature.

(3) Tested with pulses $t_p = 20$ ms.

(4) The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current I_{ZT} .



SOT-23

ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

Type Number	Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current		Temperature Coefficient of Zener Voltage @ I _{ZT} =5mA	
		V _Z @I _{ZT}			I _{ZT} (mA)	Z _{1%} @I _{ZT} (Ω)	Z _{5%} @I _{ZT} (Ω)	I _{sk} (mA)	I _{rk} (μA)	V _{sk} (V)	mV/°C	
		Nom(V)	Min(V)	Max(V)							Min	Max
BZX84C2V4	Z11	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0
BZX84C3V3	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0
BZX84C3V6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0
BZX84C3V9	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0
BZX84C4V3	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0
BZX84C4V7	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2
BZX84C5V1	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2
BZX84C5V6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5
BZX84C6V2	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7
BZX84C6V8	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5
BZX84C7V5	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3
BZX84C8V2	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX84C10	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0
BZX84C11	Y1	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12	Y2	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0
BZX84C15	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0
BZX84C16	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18	Y6	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0
BZX84C20	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0
BZX84C24	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3
BZX84C30	Y11	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4
BZX84C36	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4
BZX84C39	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2
BZX84C43	Y15	43	40.0	46.0	2	100	700	1	0.1	32	10	12

Notes: 1. Valid provided that device terminals are kept at ambient temperature.
2. Tested with pulses, period=5ms, pulse width =300μs.
3. f = 1kHz.



LL-34 (Minimelf) Glass SMD package
P0=500MW VF<1.0V

ELECTRICAL CHARACTERISTICS

Characteristics at T_a = 25 °C

Type	Zener Voltage Range ⁽¹⁾		Dynamic Resistance			Reverse Leakage Current			Temp coefficient of Zener Voltage TKVz (%/K)
	V _{Znom} (V)	V _{ZT} (V)	at I _{ZT} (mA)	Z _{1%} Max. (Ω)	Z _{5%} Max. (Ω)	at I _{ZK} (mA)	T _a = 25 °C Max. (μA)	T _a = 125 °C Max. (μA)	
ZMM1B ⁽²⁾	0.75	0.73...0.77	5	8	50	1	-	-	-0.26...-0.23
ZMM2B0	2	1.96...2.04	5	85	600	1	100	200	-0.09...-0.06
ZMM2B2	2.2	2.16...2.24	5	85	600	1	75	160	-0.09...-0.06
ZMM2B4	2.4	2.35...2.45	5	85	600	1	50	100	-0.09...-0.06
ZMM2B7	2.7	2.65...2.75	5	85	600	1	10	50	-0.09...-0.06
ZMM3B0	3	2.94...3.06	5	85	600	1	4	40	-0.08...-0.05
ZMM3B3	3.3	3.23...3.37	5	85	600	1	2	40	-0.08...-0.05
ZMM3B6	3.6	3.53...3.67	5	85	600	1	2	40	-0.08...-0.05
ZMM3B9	3.9	3.82...3.98	5	85	600	1	2	40	-0.08...-0.05
ZMM4B3	4.3	4.21...4.39	5	75	600	1	1	20	-0.06...-0.03
ZMM4B7	4.7	4.61...4.79	5	60	600	1	0.5	10	-0.05...+0.02
ZMM5B1	5.1	5...5.2	5	35	550	1	0.1	2	-0.02...+0.02
ZMM5B6	5.6	5.49...5.71	5	25	450	1	0.1	2	-0.05...+0.05
ZMM6B2	6.2	6.08...6.32	5	10	200	1	0.1	2	0.03...-0.06
ZMM6B8	6.8	6.66...6.94	5	8	150	1	0.1	2	0.03...-0.07
ZMM7B5	7.5	7.35...7.65	5	7	50	1	0.1	2	0.03...-0.07
ZMM8B2	8.2	8.04...8.36	5	7	50	1	0.1	2	0.03...-0.08
ZMM9B1	9.1	8.92...9.28	5	10	50	1	0.1	2	0.03...-0.09
ZMM10B	10	9.8...10.2	5	15	70	1	0.1	2	0.03...-0.1
ZMM11B	11	10.78...11.22	5	20	70	1	0.1	2	0.03...-0.11
ZMM12B	12	11.76...12.24	5	20	90	1	0.1	2	0.03...-0.11
ZMM13B	13	12.74...13.26	5	26	110	1	0.1	2	0.03...-0.11
ZMM15B	15	14.7...15.3	5	30	110	1	0.1	2	0.03...-0.11
ZMM16B	16	15.68...16.32	5	40	170	1	0.1	2	0.03...-0.11
ZMM18B	18	17.64...18.36	5	50	170	1	0.1	2	0.03...-0.11
ZMM20B	20	19.6...20.4	5	55	220	1	0.1	2	0.03...-0.11
ZMM22B	22	21.56...22.44	5	55	220	1	0.1	2	0.04...-0.12
ZMM24B	24	23.52...24.48	5	80	220	1	0.1	2	0.04...-0.12
ZMM27B	27	26.46...27.54	5	80	220	1	0.1	2	0.04...-0.12
ZMM30B	30	29.4...30.6	5	80	220	1	0.1	2	0.04...-0.12
ZMM33B	33	32.34...33.66	5	80	220	1	0.1	2	0.04...-0.12
ZMM36B	36	35.28...36.72	5	80	220	1	0.1	2	0.04...-0.12
ZMM39B	39	38.22...39.78	2.5	90	500	0.5	0.1	5	0.04...-0.12
ZMM43B	43	42.14...43.86	2.5	90	500	0.5	0.1	5	0.04...-0.12
ZMM47B	47	46.06...47.94	2.5	110	600	0.5	0.1	5	0.04...-0.12
ZMM51B	51	49.98...52.02	2.5	125	700	0.5	0.1	10	0.04...-0.12
ZMM56B	56	54.88...57.12	2.5	135	700	0.5	0.1	10	0.04...-0.12
ZMM62B	62	60.76...63.24	2.5	150	1000	0.5	0.1	10	0.04...-0.12
ZMM68B	68	66.64...69.36	2.5	200	1000	0.5	0.1	10	0.04...-0.12
ZMM75B	75	73.5...76.5	2.5	250	1000	0.5	0.1	10	0.04...-0.12

(1) Tested with pulses t_p = 20 ms.

(2) The ZMM1B is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.



DO-35 Glass Zener Diode DIP Package
PO=500mW IZ=5mA VF<1.2V

ELECTRICAL CHARACTERISTICS

Electrical Characteristics @ TA = 25°C unless otherwise specified

Type Number	Nominal Zener Voltage		Zener Voltage Range	Zener Impedance	Zener Impedance		Leakage Current @ V _R			Temperature Coefficient
	V _Z @ I _{ZT}		V _Z @ I _{ZT}	Z _{KT} @ I _{ZT}	Z _{KT} @ I _{ZK}		I _R @ T=25°C	I _R @ T=150°C	V _R	
	(V)	(mA)	(V)	(Ω)	(Ω)	(mA)	(μA)	(μA)	(V)	
BZX55C2V4	2.4	5.0	2.28 to 2.56	< 85	< 600	1.0	< 50	< 100	1.0	-0.09 to -0.06
BZX55C2V7	2.7	5.0	2.5 to 2.9	< 85	< 600	1.0	< 10	< 50	1.0	-0.09 to -0.06
BZX55C3V0	3.0	5.0	2.8 to 3.2	< 85	< 600	1.0	< 4.0	< 40	1.0	-0.08 to -0.02
BZX55C3V3	3.3	5.0	3.1 to 3.5	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C3V6	3.6	5.0	3.4 to 3.8	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C3V9	3.9	5.0	3.7 to 4.1	< 85	< 600	1.0	< 2.0	< 40	1.0	-0.08 to -0.05
BZX55C4V3	4.3	5.0	4.0 to 4.6	< 75	< 600	1.0	< 1.0	< 20	1.0	-0.06 to -0.03
BZX55C4V7	4.7	5.0	4.4 to 5.0	< 60	< 600	1.0	< 0.5	< 10	1.0	-0.05 to +0.02
BZX55C5V1	5.1	5.0	4.8 to 5.4	< 35	< 550	1.0	< 0.1	< 2.0	1.0	-0.02 to +0.02
BZX55C5V6	5.6	5.0	5.2 to 6.0	< 25	< 450	1.0	< 0.1	< 2.0	1.0	-0.05 to +0.05
BZX55C6V2	6.2	5.0	5.8 to 6.6	< 10	< 200	1.0	< 0.1	< 2.0	2.0	0.03 to 0.06
BZX55C6V8	6.8	5.0	6.4 to 7.2	< 8.0	< 150	1.0	< 0.1	< 2.0	3.0	0.03 to 0.07
BZX55C7V5	7.5	5.0	7.0 to 7.9	< 7.0	< 50	1.0	< 0.1	< 2.0	5.0	0.03 to 0.07
BZX55C8V2	8.2	5.0	7.7 to 8.7	< 7.0	< 50	1.0	< 0.1	< 2.0	6.2	0.03 to 0.08
BZX55C9V1	9.1	5.0	8.5 to 9.6	< 10	< 50	1.0	< 0.1	< 2.0	6.8	0.03 to 0.09
BZX55C10	10	5.0	9.4 to 10.6	< 15	< 70	1.0	< 0.1	< 2.0	7.5	0.03 to 0.10
BZX55C11	11	5.0	10.4 to 11.6	< 20	< 70	1.0	< 0.1	< 2.0	8.2	0.03 to 0.11
BZX55C12	12	5.0	11.4 to 12.7	< 20	< 90	1.0	< 0.1	< 2.0	9.1	0.03 to 0.11
BZX55C13	13	5.0	12.4 to 14.1	< 26	< 110	1.0	< 0.1	< 2.0	10	0.03 to 0.11
BZX55C15	15	5.0	13.8 to 15.6	< 30	< 110	1.0	< 0.1	< 2.0	11	0.03 to 0.11
BZX55C16	16	5.0	15.3 to 17.1	< 40	< 170	1.0	< 0.1	< 2.0	12	0.03 to 0.11
BZX55C18	18	5.0	16.8 to 19.1	< 50	< 170	1.0	< 0.1	< 2.0	13	0.03 to 0.11
BZX55C20	20	5.0	18.8 to 21.2	< 55	< 220	1.0	< 0.1	< 2.0	15	0.03 to 0.11
BZX55C22	22	5.0	20.8 to 23.3	< 55	< 220	1.0	< 0.1	< 2.0	16	0.04 to 0.12
BZX55C24	24	5.0	22.8 to 25.6	< 80	< 220	1.0	< 0.1	< 2.0	18	0.04 to 0.12
BZX55C27	27	5.0	25.1 to 28.9	< 80	< 220	1.0	< 0.1	< 2.0	20	0.04 to 0.12
BZX55C30	30	5.0	28 to 32	< 80	< 220	1.0	< 0.1	< 2.0	22	0.04 to 0.12
BZX55C33	33	5.0	31 to 35	< 80	< 220	1.0	< 0.1	< 2.0	24	0.04 to 0.12
BZX55C36	36	5.0	34 to 38	< 80	< 220	1.0	< 0.1	< 2.0	27	0.04 to 0.12
BZX55C39	39	2.5	37 to 41	< 90	< 500	0.5	< 0.1	< 5.0	30	0.04 to 0.12
BZX55C43	43	2.5	40 to 46	< 90	< 600	0.5	< 0.1	< 5.0	33	0.04 to 0.12
BZX55C47	47	2.5	44 to 50	< 110	< 700	0.5	< 0.1	< 5	36	0.04 to 0.12
BZX55C51	51	2.5	48 to 54	< 125	< 700	0.5	< 0.1	< 10	39	0.04 to 0.12
BZX55C56	56	2.5	52 to 60	< 135	< 1000	0.5	< 0.1	< 10	43	0.04 to 0.12
BZX55C62	62	2.5	58 to 66	< 150	< 1000	0.5	< 0.1	< 10	47	0.04 to 0.12
BZX55C68	68	2.5	64 to 72	< 200	< 1000	0.5	< 0.1	< 10	51	0.04 to 0.12
BZX55C75	75	2.5	70 to 79	< 250	< 1500	0.5	< 0.1	< 10	56	0.04 to 0.12



[Instruments]



[Cell Phone]



[Tablet devices]



[Power supply equipment]



[communication equipment]

DO-41 Glass Zener Diode DIP Package
PO=1000mW VF<1.2V

ELECTRICAL CHARACTERISTICS

Characteristics at TA = 25 °C

Type	Zener Voltage ³⁾		Dynamic Resistance ¹⁾			Reverse Current		Maximum Surge Current ⁴⁾	Maximum Regulator Current ²⁾
	V _{ZNOM}	at I _{ZT}	Z _{2T}	Z _{2K}	at I _{ZK}	I _R	at V _R	at T _a = 25 °C	
	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	I _{ZSM} (mA)	I _{ZM} (mA)
1N4727	3	83	10	400	1	150	1	1375	275
1N4728	3.3	76	10	400	1	150	1	1375	275
1N4729	3.6	69	10	400	1	100	1	1260	252
1N4730	3.9	64	9	400	1	100	1	1190	234
1N4731	4.3	58	9	400	1	50	1	1070	217
1N4732	4.7	53	8	500	1	10	1	970	193
1N4733	5.1	49	7	550	1	10	1	890	178
1N4734	5.6	45	5	600	1	10	2	810	162
1N4735	6.2	41	2	700	1	10	3	730	146
1N4736	6.8	37	3.5	700	1	10	4	660	133
1N4737	7.5	34	4	700	0.5	10	5	605	121
1N4738	8.2	31	4.5	700	0.5	10	6	550	110
1N4739	9.1	28	5	700	0.5	10	7	500	100
1N4740	10	25	7	700	0.25	10	7.6	454	91
1N4741	11	23	8	700	0.25	5	8.4	414	83
1N4742	12	21	9	700	0.25	5	9.1	380	76
1N4743	13	19	10	700	0.25	5	9.9	344	69
1N4744	15	17	14	700	0.25	5	11.4	304	61
1N4745	16	15.5	16	700	0.25	5	12.2	285	57
1N4746	18	14	20	750	0.25	5	13.7	250	50
1N4747	20	12.5	22	750	0.25	5	15.2	225	45
1N4748	22	11.5	23	750	0.25	5	16.7	205	41
1N4749	24	10.5	25	750	0.25	5	18.2	190	38
1N4750	27	9.5	35	750	0.25	5	20.6	170	34
1N4751	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753	36	7	50	1000	0.25	5	27.4	125	25
1N4754	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755	43	6	70	1500	0.25	5	32.7	110	22
1N4756	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757	51	5	95	1500	0.25	5	38.8	90	18
1N4758	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759	62	4	125	2000	0.25	5	47.1	70	14
1N4760	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761	75	3.3	175	2000	0.25	5	56	60	12

(1) The dynamic resistance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (IZT or IZK) is superimposed on IZT or IZK. Dynamic resistance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

(2) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

(3) Tested with pulses tp = 20 ms.

(4) The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current IZT.



[Industrial Sensors]



[Wireless communication module]



[IoT devices]



[Smart watches]



[wireless headphones]

开关二极管
Switching Diodes

1N4148W-1N4148

型号	P ₀ (mW)	I ₀ (mA)	V _r (V)	V _r (V)	I ₀ (μA)	封装形式	MARKING
1N4148W	350	150	75	1.25	1	SOD-123	T4
1N4448W	500	250	75	1.25	2.5	SOD-123	T5
BAV16W	400	150	75	1.25	1	SOD-123	T6
BAV19W	500	200	100	1.25	0.1	SOD-123	A8
BAV20W	500	200	150	1.25	0.1	SOD-123	T2
BAV21W	500	200	200	1.25	0.1	SOD-123	T3
1N4148WS	200	150	75	1.25	1	SOD-323	T4
1N4448WS	200	250	75	1.25	2.5	SOD-323	T5
1SS355	200	100	80	1.2	0.1	SOD-323	A
BAS316	250	250	100	1.25	1	SOD-323	A6
BAV16WS	200	150	75	1.25	1	SOD-323	T6
BAV19WS	250	200	100	1.25	0.1	SOD-323	A8
BAV20WS	250	200	150	1.25	0.1	SOD-323	T2
BAV21WS	250	200	200	1.25	0.1	SOD-323	T3
BAS16	225	150	75	1.25	1	SOT-23	A6
BAS19	250	200	100	1.25	0.1	SOT-23	JP
BAS20	250	200	150	1.25	0.1	SOT-23	JR
BAS21	225	200	250	1.25	0.1	SOT-23	JS
BAW56	225	200	70	1.25	2.5	SOT-23	A1
BAV70	225	200	70	1.25	2.5	SOT-23	A4
BAV99	225	200	70	1.25	2.5	SOT-23	A7
BAV199	200	215	70	1.25	0.005	SOT-23	JY
MMBD4148	350	150	75	1.25	2.5	SOT-23	KA2
MMBD4148A	350	200	100	1	5	SOT-23	5H
MMBD4148CA	350	200	100	1	5	SOT-23	D6
MMBD4148CC	350	200	100	1	5	SOT-23	D5
MMBD4148SE	350	200	100	1	5	SOT-23	D4
MMBD4448	350	250	75	1.25	2.5	SOT-23	KA3
LL4148	500	150	100	1	5	LL-34	\
LL4448	500	250	200			LL-34	\
1N4148	500	150	100	1	5	DO-35	4148



[Consumer Electronics]



[Industrial Control]



[Automotive Electronics]



[Medical Devices]

双向触发二极管
Trigger Diodes

DB3-LLDB4

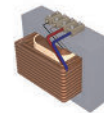
CTK 通科电子
TONGKE ELECTRONIC

型号	转折电压			VBO电压对称性	最大峰值转折电流	最小回弹电压	最大峰值电流	封装形式
TYPE	Breakover Voltage VBO			Maximum breaker Voltage symmtry	Maximum Breakover Current	Minimum Dynamic Breakover Voltage	Maximum peak on-state Current	Packaging
	C=22nF			$V_{BO}=[V_{BO1}]-[V_{BO2}]$	IBO	at $\Delta I = [1 \text{ BO to } 1 \text{ F} = 10 \text{ mA}]$	I _{tm}	
				C=22nF	C=22nF		tp=20uA sf=100hz	
	MIN(V)	TYP(V)	MAX (V)	V	uA	V	A	
DB3	28	32	36	3	100	5	2	DO-35
DB4	35	40	45	3	100	5	2	DO-35
LLDB3	28	32	36	3	100	5	2	LL-34
LLDB4	35	40	45	3	100	5	2	LL-34

玻封小信号肖特基二极管
Glass Small Signal Schottky Diode

LL60P-1N60P

型号	反向电压	最大反向漏 电流	最大正向电压		最大反向恢 复时间	封装形式
TYPE	Minimum Peak Reverse Voltage	Maximum Reverse Leakage Current	Maximum Forward Voltage		Maximum Reverse Recovery time Trr	Packaging
	IZ=5MA	IR VR=15V	IF=1MA	IF=100MA	IF=IR=1MA RL=100Ω IRR=1MA	
	V	μA	V	V	nS	
LL60P	45	1.0	0.5	1.0	1	LL-34
1N60P	45	1.0	0.5	1.0	1	DO-35



[Transformer]



[Electric heater]



[Dimmer]

型号	P _D (mW)	I _O (mA)	V _R (V)	V _F (V)	I _R (μA)	封装形式	MARKING
B5817W	500	1000	20	0.75	1000	SOD-123	SJ
B5818W	500	1000	30	0.875	1000	SOD-123	SK
B5819W	500	1000	40	0.9	1000	SOD-123	SL
MBR0520	410	500	20	0.45	80	SOD-123	R2
MBR0530	410	500	30	0.55	80	SOD-123	R3
MBR0540	410	500	40	0.55	80	SOD-123	R4
MBR0560	410	500	60	0.7	80	SOD-123	R6
MBR0580	410	500	80	0.8	80	SOD-123	R8
SD103AW	400	-	40	0.6	5	SOD-123	S4
SD103BW	400	-	30	0.6	5	SOD-123	S5
SD103CW	400	-	20	0.6	5	SOD-123	S6
B0520WS	200	500	20	0.39	250	SOD-323	SD
B0530WS	200	500	30	0.45	500	SOD-323	SE
B0540WS	200	500	40	0.62	20	SOD-323	SF
B5817WS	250	1000	20	0.75	1000	SOD-323	SJ
B5818WS	250	1000	30	0.875	1000	SOD-323	SK
B5819WS	250	1000	40	0.9	1000	SOD-323	SL
MBRX0520	250	500	20	0.45	80	SOD-323	2
MBRX0530	250	500	30	0.55	80	SOD-323	3
MBRX0540	250	500	40	0.55	80	SOD-323	4
MBRX0560	250	500	60	0.7	80	SOD-323	6
RB550V-30	200	1000	30	0.52	30	SOD-323	SS
RB551V-30	200	500	30	0.47	100	SOD-323	D
RB551V-40	200	500	40	0.47	100	SOD-323	D4
SD103AWS	200	350	40	0.6	5	SOD-323	S4
SD103BWS	200	350	30	0.6	5	SOD-323	S5
SD103CWS	200	350	20	0.6	5	SOD-323	S6
1SS344	200	500	20	0.55	100	SOT-23	H9
BAS70	200	70	70	1	0.1	SOT-23	73
BAS70-04	200	70	70	1	0.1	SOT-23	74
BAS70-05	200	70	70	1	0.1	SOT-23	75
BAS70-06	200	70	70	1	0.1	SOT-23	76
BAT54	200	200	30	1	2	SOT-23	KL1
BAT54A	200	200	30	1	2	SOT-23	KL2
BAT54C	200	200	30	1	2	SOT-23	KL3
BAT54S	200	200	30	1	2	SOT-23	KL4



型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @0.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	℃	Apk	UAds	Apk	Vpk	ns	
1.0AMP SCHOTTKY DIODES1.0A 肖特基二极管									
1N5817	20	1.0	75	25	0.5	1.0	0.45	---	DO-41
1N5819	40	1.0	75	25	0.5	1.0	0.6	---	DO-41
SR160	60	1.0	75	40	0.5	1.0	0.7	---	DO-41
SR180	80	1.0	75	40	0.5	1.0	0.85	---	DO-41
SR1100	100	1.0	75	40	0.5	1.0	0.85	---	DO-41
SS12	20	1.0	90	25	0.5	1.0	0.45	---	SMA
SS14	40	1.0	90	25	0.5	1.0	0.6	---	SMA
SS16	60	1.0	100	40	0.5	1.0	0.7	---	SMA
SS18	80	1.0	100	40	0.5	1.0	0.85	---	SMA
SS110	100	1.0	100	40	0.5	1.0	0.85	---	SMA
SS12F	20	1.0	90	40	0.3	1.0	0.55	---	SMAF
SS14F	40	1.0	90	40	0.3	1.0	0.55	---	SMAF
SS16F	60	1.0	100	40	0.3	1.0	0.7	---	SMAF
SS18F	80	1.0	100	40	0.3	1.0	0.7	---	SMAF
SS110F	100	1.0	100	40	0.2	1.0	0.85	---	SMAF

2.0AMP SCHOTTKY DIODES2.0A 肖特基二极管									
SR220	20	2.0	75	40	0.5	2.0	0.55	---	DO-15
SR240	40	2.0	75	40	0.5	2.0	0.55	---	DO-15
SR260	60	2.0	75	40	0.5	2.0	0.75	---	DO-15
SR2100	100	2.0	75	40	0.5	2.0	0.85	---	DO-15
SR2150	150	2.0	75	40	0.5	2.0	0.85	---	DO-15
SR2200	200	2.0	75	40	0.5	2.0	0.95	---	DO-15
SS22	20	2.0	75	40	0.5	2.0	0.55	---	SMA/SMB
SS24	40	2.0	75	40	0.5	2.0	0.55	---	SMA/SMB
SS26	60	2.0	100	40	0.5	2.0	0.75	---	SMA/SMB
SS210	100	2.0	100	40	0.5	2.0	0.85	---	SMA/SMB
SS220	200	2.0	100	40	0.5	2.0	0.95	---	SMA/SMB
SS22F	20	2.0	75	50	0.5	2.0	0.55	---	SMAF
SS24F	40	2.0	75	50	0.5	2.0	0.55	---	SMAF
SS26F	60	2.0	100	50	0.5	2.0	0.7	---	SMAF
SS210F	100	2.0	100	40	0.3	2.0	0.85	---	SMAF
SS220F	200	2.0	100	40	0.3	2.0	0.95	---	SMAF

型号	P _D (mW)	I _O (mA)	V _R (V)	V _F (V)	I _R (μA)	封装形式	MARKING
B5817W	500	1000	20	0.75	1000	SOD-123	SJ
B5818W	500	1000	30	0.875	1000	SOD-123	SK
B5819W	500	1000	40	0.9	1000	SOD-123	SL
MBR0520	410	500	20	0.45	80	SOD-123	R2
MBR0530	410	500	30	0.55	80	SOD-123	R3
MBR0540	410	500	40	0.55	80	SOD-123	R4
MBR0560	410	500	60	0.7	80	SOD-123	R6
MBR0580	410	500	80	0.8	80	SOD-123	R8
SD103AW	400	-	40	0.6	5	SOD-123	S4
SD103BW	400	-	30	0.6	5	SOD-123	S5
SD103CW	400	-	20	0.6	5	SOD-123	S6
B0520WS	200	500	20	0.39	250	SOD-323	SD
B0530WS	200	500	30	0.45	500	SOD-323	SE
B0540WS	200	500	40	0.62	20	SOD-323	SF
B5817WS	250	1000	20	0.75	1000	SOD-323	SJ
B5818WS	250	1000	30	0.875	1000	SOD-323	SK
B5819WS	250	1000	40	0.9	1000	SOD-323	SL
MBRX0520	250	500	20	0.45	80	SOD-323	2
MBRX0530	250	500	30	0.55	80	SOD-323	3
MBRX0540	250	500	40	0.55	80	SOD-323	4
MBRX0560	250	500	60	0.7	80	SOD-323	6
RB550V-30	200	1000	30	0.52	30	SOD-323	SS
RB551V-30	200	500	30	0.47	100	SOD-323	D
RB551V-40	200	500	40	0.47	100	SOD-323	D4
SD103AWS	200	350	40	0.6	5	SOD-323	S4
SD103BWS	200	350	30	0.6	5	SOD-323	S5
SD103CWS	200	350	20	0.6	5	SOD-323	S6
1SS344	200	500	20	0.55	100	SOT-23	H9
BAS70	200	70	70	1	0.1	SOT-23	73
BAS70-04	200	70	70	1	0.1	SOT-23	74
BAS70-05	200	70	70	1	0.1	SOT-23	75
BAS70-06	200	70	70	1	0.1	SOT-23	76
BAT54	200	200	30	1	2	SOT-23	KL1
BAT54A	200	200	30	1	2	SOT-23	KL2
BAT54C	200	200	30	1	2	SOT-23	KL3
BAT54S	200	200	30	1	2	SOT-23	KL4



型号	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式	
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz	Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25Cta	Maximum Forward Voltage @25Cta		Maximum Reverse Recovery Time	Packaging	
	PRV	Io@TA	IFM(Surge)	IR	IFM	VFM	Trr		
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
1.0AMP SCHOTTKY DIODES1.0A 肖特基二极管									
1N5817	20	1.0	75	25	0.5	1.0	0.45	---	DO-41
1N5819	40	1.0	75	25	0.5	1.0	0.6	---	DO-41
SR160	80	1.0	75	40	0.5	1.0	0.7	---	DO-41
SR180	80	1.0	75	40	0.5	1.0	0.85	---	DO-41
SR1100	100	1.0	75	40	0.5	1.0	0.85	---	DO-41
SS12	20	1.0	90	25	0.5	1.0	0.45	---	SMA
SS14	40	1.0	90	25	0.5	1.0	0.6	---	SMA
SS16	60	1.0	100	40	0.5	1.0	0.7	---	SMA
SS18	80	1.0	100	40	0.5	1.0	0.85	---	SMA
SS110	100	1.0	100	40	0.5	1.0	0.85	---	SMA
SS12F	20	1.0	90	40	0.3	1.0	0.55	---	SMAF
SS14F	40	1.0	90	40	0.3	1.0	0.55	---	SMAF
SS16F	60	1.0	100	40	0.3	1.0	0.7	---	SMAF
SS18F	80	1.0	100	40	0.3	1.0	0.7	---	SMAF
SS110F	100	1.0	100	40	0.2	1.0	0.85	---	SMAF

2.0AMP SCHOTTKY DIODES2.0A 肖特基二极管									
SR220	20	2.0	75	40	0.5	2.0	0.55	---	DO-15
SR240	40	2.0	75	40	0.5	2.0	0.55	---	DO-15
SR260	60	2.0	75	40	0.5	2.0	0.75	---	DO-15
SR2100	100	2.0	75	40	0.5	2.0	0.85	---	DO-15
SR2150	150	2.0	75	40	0.5	2.0	0.85	---	DO-15
SR2200	200	2.0	75	40	0.5	2.0	0.95	---	DO-15
SS22	20	2.0	75	40	0.5	2.0	0.55	---	SMA/SMB
SS24	40	2.0	75	40	0.5	2.0	0.55	---	SMA/SMB
SS26	60	2.0	100	40	0.5	2.0	0.75	---	SMA/SMB
SS210	100	2.0	100	40	0.5	2.0	0.85	---	SMA/SMB
SS220	200	2.0	100	40	0.5	2.0	0.95	---	SMA/SMB
SS22F	20	2.0	75	50	0.5	2.0	0.55	---	SMAF
SS24F	40	2.0	75	50	0.5	2.0	0.55	---	SMAF
SS26F	60	2.0	100	50	0.5	2.0	0.7	---	SMAF
SS210F	100	2.0	100	40	0.3	2.0	0.85	---	SMAF
SS220F	200	2.0	100	40	0.3	2.0	0.95	---	SMAF



[LED driver circuits]



[Automotive electronics]



[Wearable devices]



[Inverters]



[Rectifiers]

整流桥
Bridge Rectifiers

MB6M-KBP310

型号 TYPE	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降	封装形式 Packaging
	Maximum	Maximum Average Rectified	Maximum Forward	Maximum Reverse	Maximum Forward	
	Peak	Current	Peak Surge	Current		
	Reverse		Current@8.3ms			
	Voltage		Single Halfsine-wave			
	VRRM(V)	IF(A)	IFSM(A)	IR(μA)	VF(V)	
MB6M	600	0.8	35	5.0	1.0	MBM
MB8M	800	0.8	35	5.0	1.0	MBM
MB10M	1000	0.8	35	5.0	1.0	MBM
MB6S	600	0.5	35	5.0	1.0	MBS
MB8S	800	0.5	35	5.0	1.0	MBS
MB10S	1000	0.5	35	5.0	1.0	MBS
MB6F	600	0.5	35	5.0	1.0	MBF
MB8F	800	0.5	35	5.0	1.0	MBF
MB10F	1000	0.5	35	5.0	1.0	MBF
ABS6	600	0.8	30	5.0	1.0	ABS
ABS8	800	0.8	30	5.0	1.0	ABS
ABS10	1000	0.8	30	5.0	1.0	ABS
ABS210	1000	2	50	5.0	1.0	ABS
DB107S	1000	1	40	5	1.1	DBS
DB107	1000	1	40	5	1.1	DBS
DB157S	1000	1.5	60	5	1.1	DBS
DB157	1000	1.5	60	5	1.1	DBS
DB207S	1000	2	80	10	1.1	DBS
DB207	1000	2	80	10	1.1	DBS
2W10	1000	2	50	10	1	WOM
KBP200S	50	2	50	10	1	KBP
KBP201	100	2	50	10	1	KBP
KBP202	200	2	50	10	1	KBP
KBP204	400	2	50	10	1	KBP
KBP206	600	2	50	10	1	KBP
KBP208	800	2	50	10	1	KBP
KBP210	1000	2	50	10	1	KBP
KBP300S	50	3	80	10	1.1	KBP
KBP301	100	3	80	10	1.1	KBP
KBP302	200	3	80	10	1.1	KBP
KBP304	400	3	80	10	1.1	KBP
KBP306	600	3	80	10	1.1	KBP
KBP308	800	3	80	10	1.1	KBP
KBP310	1000	3	80	10	1.1	KBP



整流桥
Bridge Rectifiers

KBL400S/RS401-GBU410

CTK 通科电子
TONGKE ELECTRONIC

型号 TYPE	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降	封装形式 Packaging
	Maximum	Maximum Average Rectified	Maximum Forward	Maximum Reverse	Maximum Forward	
	Peak	Current	Peak Surge	Current		
	Reverse		Current@8.3ms			
	Voltage		Single Halfsine-wave			
	VRRM(V)	IF(A)	IFSM(A)	IR(μA)		
KBL400S/RS401	50	4	150	10	1.1	KBL
KBL401/RS402	100	4	150	10	1.1	KBL
KBL402/RS403	200	4	150	10	1.1	KBL
KBL404/RS404	400	4	150	10	1.1	KBL
KBL406/RS405	600	4	150	10	1.1	KBL
KBL408/RS406	800	4	150	10	1.1	KBL
KBL410/RS407	1000	4	150	10	1.1	KBL
KBJ/GBJ400S	50	4	120	10	1.1	GBJ
KBP/GBJ401	100	4	120	10	1.1	GBJ
KBP/GBJ402	200	4	120	10	1.1	GBJ
KBP/GBJ404	400	4	120	10	1.1	GBJ
KBP/GBJ406	600	4	120	10	1.1	GBJ
KBP/GBJ408	800	4	120	10	1.1	GBJ
KBP/GBJ410	1000	4	120	10	1.1	GBJ
GBU400S	50	4	150	10	1.1	GBU
GBU401	100	4	150	10	1.1	GBU
GBU402	200	4	150	10	1.1	GBU
GBU404	400	4	150	10	1.1	GBU
GBU406	600	4	150	10	1.1	GBU
GBU408	800	4	150	10	1.1	GBU
GBU410	1000	4	150	10	1.1	GBU



整流桥 Bridge Rectifiers

KBL6005-GBU610

型号 TYPE	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降	封装形式 Packaging
	Maximum	Maximum Average Rectified	Maximum Forward	Maximum Reverse	Maximum Forward	
	Peak	Current	Peak Surge	Current		
	Reverse		Current@8.3ms			
	Voltage		Single Halfsine-wave			
	VRRM(V)	IF(A)	IFSM(A)	IR(μA)		
KBL6005	50	6	125	10	1.1	KBL
KBL601	100	6	125	10	1.1	KBL
KBL602	200	6	125	10	1.1	KBL
KBL604	400	6	125	10	1.1	KBL
KBL606	600	6	125	10	1.1	KBL
KBL608	800	6	125	10	1.1	KBL
KBL610	1000	6	125	10	1.1	KBL
GBJ6005	50	6	150	10	1	GBJ
GBJ601	100	6	150	10	1	GBJ
GBJ602	200	6	150	10	1	GBJ
GBJ604	400	6	150	10	1	GBJ
GBJ606	600	6	150	10	1	GBJ
GBJ608	800	6	150	10	1	GBJ
GBJ610	1000	6	150	10	1	GBJ
GBU6005	50	6	175	10	1	GBU
GBU601	100	6	175	10	1	GBU
GBU602	200	6	175	10	1	GBU
GBU604	400	6	175	10	1	GBU
GBU606	600	6	175	10	1	GBU
GBU608	800	6	175	10	1	GBU
GBU610	1000	6	175	10	1	GBU



[Smart speakers]



[LED lighting]



[Security Camera]



[Smart home devices]

整流二极管 Rectifiers Diode

1N4001-S2M

CTK 通科电子
TONGKE ELECTRONIC

型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式	
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging	
	PRV		Io@TA		IFM(Surge)	IR	IFM	VFM		Trr
	Vpk	Aav	°C		Apk	UAds	Apk	Vpk		ns
1.0AM RECTIFIERS DIODES/1.0A 整流二极管										
1N4001	50	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4002	100	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4003	200	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4004	400	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4005	600	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4006	800	1.0	75	30	5.0	1.0	1.0	---	DO-41	
1N4007	1000	1.0	75	30	5.0	1.0	1.0	---	DO-41	
M1	50	1.0	75	30	5.0	1.0	1.0	---	SMA	
M4	400	1.0	75	30	5.0	1.0	1.0	---	SMA	
M7	1000	1.0	75	30	5.0	1.0	1.0	---	SMA	
A7	1000	1.0	50	30	5.0	1.0	1.0	---	SOD-123	
M7F	1000	1.0	30	75	5.0	1.0	1.0	---	SMAF	

1.5 AMP RESRECTIFIERS DIODES/1.5A 整流二极管

1N5391	50	1.5	50	50	5.0	1.5	1.0	DO-15
1N5392	100	1.5	50	50	5.0	1.5	1.0	DO-15
1N5393	200	1.5	50	50	5.0	1.5	1.0	DO-15
1N5395	400	1.5	50	50	5.0	1.5	1.0	DO-15
1N5396	500	1.5	50	50	5.0	1.5	1.0	DO-15
1N5397	600	1.5	50	50	5.0	1.5	1.0	DO-15
1N5398	800	1.5	50	50	5.0	1.5	1.0	DO-15
1N5399	1000	1.5	50	50	5.0	1.5	1.0	DO-15

2.0AMPE RECTIFIERS DIODES/2.0A 整流二极管

RL201	50	2.0	50	70	5.0	2.0	1.0	DO-15
RL202	100	2.0	50	70	5.0	2.0	1.0	DO-15
RL203	200	2.0	50	70	5.0	2.0	1.0	DO-15
RL204	400	2.0	50	70	5.0	2.0	1.0	DO-15
RL205	600	2.0	50	70	5.0	2.0	1.0	DO-15
RL206	800	2.0	50	70	5.0	2.0	1.0	DO-15
RL207	1000	2.0	50	70	5.0	2.0	1.0	DO-15
S2A	50	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2B	100	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2D	200	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2G	400	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2J	600	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2K	800	2.0	50	50	5.0	2.0	1.0	SMA/SMB
S2M	1000	2.0	50	50	5.0	2.0	1.0	SMA/SMB



900-123PL系列



900-123PL系列



M7 SMAF系列



SMA 系列

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型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
3.0AMPE RECTIFIERS DIODES/3.0A 整流二极管									
1N5400	50	3.0	75	200	5.0	3.0	1.0		
1N5401	100	3.0	75	200	5.0	3.0	1.0	∞	DO-27
1N5402	200	3.0	75	200	5.0	3.0	1.0	∞	DO-27
1N5404	400	3.0	75	200	5.0	3.0	1.0	∞	DO-27
1N5406	600	3.0	75	200	5.0	3.0	1.0	∞	DO-27
1N5407	800	3.0	75	200	5.0	3.0	1.0	∞	DO-27
1N5408	1000	3.0	75	200	5.0	3.0	1.0	∞	DO-27
S3A	50	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3B	100	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3D	200	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3G	400	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3J	600	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3K	800	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC
S3M	1000	3.0	75	200	5.0	3.0	1.0	∞	SMB/SMC

6.0AMPE RECTIFIERS DIODES/6.0A 整流二极管									
6A1	100	6.0	75	400	10.0	6.0	0.95	--	R-6
6A2	200	6.0	75	400	10.0	6.0	0.95	--	R-6
6A4	400	6.0	75	400	10.0	6.0	0.95	--	R-6
6A6	600	6.0	75	400	10.0	6.0	0.95	--	R-6
6A8	800	6.0	75	400	10.0	6.0	0.95	--	R-6
6A10	1000	6.0	75	400	10.0	6.0	0.95	--	R-6

10.0APE RECTIFIERS DIODES/10.0A 整流二极管									
10A1	100	10.0	75	400	10.0	10.0	0.95	---	R-6
10A2	200	10.0	75	400	10.0	10.0	0.95	---	R-6
10A4	400	10.0	75	400	10.0	10.0	0.95	---	R-6
10A6	600	10.0	75	400	10.0	10.0	0.95	---	R-6
10A8	800	10.0	75	400	10.0	10.0	0.95	---	R-6
10A10	1000	10.0	75	400	10.0	10.0	0.95	---	R-6



[Home Appliances]



[Automotive electronics]



[Solar power generation equipment]



[Industrial equipment]

型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
1.0AMP HIGH EFFICIENCY RECTIFIER/1.0A 高效整流二极管									
HER101	50	1.0	50	30	5.0	1.0	1.0	50	DO-41
HER102	100	1.0	50	30	5.0	1.0	1.0	50	DO-41
HER103	200	1.0	50	30	5.0	1.0	1.0	50	DO-41
HER104	300	1.0	50	30	5.0	1.0	1.3	50	DO-41
HER105	400	1.0	50	30	5.0	1.0	1.3	50	DO-41
HER107	800	1.0	50	30	5.0	1.0	1.7	75	DO-41
HER108	1000	1.0	50	30	5.0	1.0	1.7	75	DO-41
US1A	50	1.0	50	30	5.0	1.0	1.0	50	SMA
US1B	100	1.0	50	30	5.0	1.0	1.0	50	SMA
US1D	200	1.0	50	30	5.0	1.0	1.0	50	SMA
US1G	300	1.0	50	30	5.0	1.0	1.3	50	SMA
US1J	400	1.0	50	30	5.0	1.0	1.3	50	SMA
US1K	800	1.0	50	30	5.0	1.0	1.7	75	SMA
US1M	1000	1.0	50	30	5.0	1.0	1.7	75	SMA
US1AF	50	1.0	50	30	5.0	1.0	1.0	50	SMAF
US1BF	100	1.0	50	30	5.0	1.0	1.0	50	SMAF
US1DF	200	1.0	50	30	5.0	1.0	1.0	50	SMAF
US1GF	400	1.0	50	30	5.0	1.0	1.4	50	SMAF
US1JK	600	1.0	50	30	5.0	1.0	1.7	75	SMAF
US1KF	800	1.0	50	30	5.0	1.0	1.7	75	SMAF
US1MF	1000	1.0	50	30	5.0	1.0	1.7	75	SMAF

1.5AMP HIGH EFFICIENCY RECTIFIER/1.5A 高效整流二极管									
HER152	100	1.5	50	60	5.0	1.5	1.0	50	DO-15
HER153	200	1.5	50	60	5.0	1.5	1.0	50	DO-15
HER154	300	1.5	50	60	5.0	1.5	1.3	50	DO-15
HER157	800	1.5	50	60	5.0	1.5	1.7	75	DO-15
HER158	1000	1.5	50	60	5.0	1.5	1.7	75	DO-15

5.0AMP HIGH EFFICIENCY/5.0A 高效整流二极管									
HER502	100	5.0	50	200	10.0	5.0	1.0	50	DO-27
HER503	200	5.0	50	200	10.0	5.0	1.0	50	DO-27
HER504	300	5.0	50	200	10.0	5.0	1.3	50	DO-27
HER505	400	5.0	50	200	10.0	5.0	1.3	50	DO-27
HER506	600	5.0	50	150	10.0	5.0	1.5	75	DO-27
HER507	800	5.0	50	150	10.0	5.0	1.7	75	DO-27
HER508	1000	5.0	50	150	10.0	5.0	1.7	75	DO-27

6.0AMP HIGH EFFICIENCY RECTIFIER/6.0A 高效整流二极管										
HER602	100	6.0	50	200	10.0	6.0	1.0	50		R-6
HER603	200	6.0	50	200	10.0	6.0	1.0	50		R-6
HER604	300	6.0	50	200	10.0	6.0	1.3	50		R-6
HER607	800	6.0	50	200	10.0	6.0	1.7	75		R-6
HER608	1000	6.0	50	200	10.0	6.0	1.7	75		R-6

型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
2.0AMP HIGH EFFICIENCY RECTIFIER/2.0A 高效整流二极管									
HER202	100	2.0	50	70	5.0	2.0	1.0	50	DO-15
HER203	200	2.0	50	70	5.0	2.0	1.0	50	DO-15
HER204	300	2.0	50	70	5.0	2.0	1.3	50	DO-15
HER205	400	2.0	50	70	5.0	2.0	1.3	50	DO-15
HER206	600	2.0	50	70	5.0	2.0	1.7	75	DO-15
HER207	800	2.0	50	70	5.0	2.0	1.7	75	DO-15
HER208	1000	2.0	50	70	5.0	2.0	1.7	75	DO-15
US2A	50	2.0	50	70	5.0	2.0	1.0	50	SMA/SMB
US2B	100	2.0	50	70	5.0	2.0	1.0	50	SMA/SMB
US2D	200	2.0	50	70	5.0	2.0	1.3	50	SMA/SMB
US2G	400	2.0	50	70	5.0	2.0	1.3	50	SMA/SMB
US2J	600	2.0	50	70	5.0	2.0	1.7	75	SMA/SMB
US2K	800	2.0	50	70	5.0	2.0	1.7	75	SMA/SMB
US2M	1000	2.0	50	70	5.0	2.0	1.7	75	SMA/SMB
US2AF	50	2.0	50	50	5.0	2.0	1.0	50	SMAF
US2BF	100	2.0	50	50	5.0	2.0	1.0	50	SMAF
US2DF	200	2.0	50	50	5.0	2.0	1.0	50	SMAF
US2GF	400	2.0	50	50	5.0	2.0	1.4	50	SMAF
US2JF	600	2.0	50	50	5.0	2.0	1.7	75	SMAF
US2KF	800	2.0	50	50	5.0	2.0	1.7	75	SMAF
US2MF	1000	2.0	50	50	5.0	2.0	1.7	75	SMAF

3.0AMP HIGH EFFICIENCY RECTIFIER/3.0A 高效整流二极管									
HER302	100	3.0	50	150	10.0	3.0	1.0	50	DO-27
HER303	200	3.0	50	150	10.0	3.0	1.0	50	DO-27
HER304	300	3.0	50	150	10.0	3.0	1.3	50	DO-27
HER305	400	3.0	50	150	10.0	3.0	1.3	50	DO-27
HER306	600	3.0	50	150	10.0	3.0	1.7	75	DO-27
HER307	800	3.0	50	150	10.0	3.0	1.7	75	DO-27
HER308	1000	3.0	50	150	10.0	3.0	1.7	75	DO-27
US3A	50	3.0	50	150	10.0	3.0	1.0	50	SMB/SMC
US3B	100	3.0	50	150	10.0	3.0	1.0	50	SMB/SMC
US3D	200	3.0	50	150	10.0	3.0	1.3	50	SMB/SMC
US3G	400	3.0	50	150	10.0	3.0	1.3	50	SMB/SMC
US3J	600	3.0	50	150	10.0	3.0	1.7	75	SMB/SMC
US3K	800	3.0	50	150	10.0	3.0	1.7	75	SMB/SMC
US3M	1000	3.0	50	150	10.0	3.0	1.7	75	SMB/SMC
US3AF	50	3.0	50	100	5.0	3.0	1.0	50	SMAF
US3BF	100	3.0	50	100	5.0	3.0	1.0	50	SMAF
US3DF	200	3.0	50	100	5.0	3.0	1.0	50	SMAF
US3GF	400	3.0	50	100	5.0	3.0	1.4	50	SMAF
US3JF	600	3.0	50	100	5.0	3.0	1.7	100	SMAF
US3KF	800	3.0	50	100	5.0	3.0	1.7	100	SMAF
US3MF	1000	3.0	50	100	5.0	3.0	1.7	100	SMAF

型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
1.0AMP ULTRA-FAST RECOVERY RECTIFIER /1.0A 超快恢复二极管									
UF4001	50	1.0	55	30	5.0	1.0	1.0	50	DO-41
UF4004	400	1.0	55	30	5.0	1.0	1.0	50	DO-41
UF4007	1000	1.0	55	30	5.0	1.0	1.7	75	DO-41
ES1A	50	1.0	55	30	5.0	1.0	0.95	35	SMA
ES1B	100	1.0	55	30	5.0	1.0	0.95	35	SMA
ES1C	150	1.0	55	30	5.0	1.0	0.95	35	SMA
ES1D	200	1.0	55	30	5.0	1.0	0.95	35	SMA
ES1E	300	1.0	55	30	5.0	1.0	1.25	35	SMA
ES1G	400	1.0	55	30	5.0	1.0	1.25	35	SMA
ES1J	600	1.0	55	30	5.0	1.0	1.25	35	SMA
ES1AF	50	1.0	55	30	5.0	1.0	1	35	SMAF
ES1BF	100	1.0	55	30	5.0	1.0	1	35	SMAF
ES1DF	200	1.0	55	30	5.0	1.0	1	35	SMAF
ES1GF	400	1.0	55	30	5.0	1.0	1.25	35	SMAF
ES1JF	600	1.0	55	30	5.0	1.0	1.7	35	SMAF

2.0AMP ULTRA-FAST RECOVERY RECTIFIER/2.0A 超快恢复二极管									
UF2004	400	2.0	55	60	5.0	2.0	1.3	50	DO-15
UF2007	1000	2.0	55	60	5.0	2.0	1.7	75	DO-15
UF2010	1000	2.0	55	60	5.0	2.0	1.7	75	DO-15
UF204	400	2.0	55	60	5.0	2.0	1.3	50	DO-15
UF207	1000	2.0	55	60	5.0	2.0	1.7	75	DO-15
ES2A	50	2.0	55	75	5.0	2.0	0.95	35	SMA/SMB
ES2B	100	2.0	55	75	5.0	2.0	0.95	35	SMA/SMB
ES2C	150	2.0	55	75	5.0	2.0	0.95	35	SMA/SMB
ES2D	200	2.0	55	75	5.0	2.0	0.95	35	SMA/SMB
ES2E	300	2.0	55	75	5.0	2.0	1.25	35	SMA/SMB
ES2G	400	2.0	55	75	5.0	2.0	1.25	35	SMA/SMB
ES2J	600	2.0	55	75	5.0	2.0	1.25	50	SMA/SMB
ES2K	800	2.0	55	75	5.0	2.0	1.25	50	SMA/SMB
ES2M	1000	2.0	55	75	5.0	2.0	1.25	50	SMA/SMB
ES2AF	50	2.0	55	50	5.0	2.0	1	35	SMAF
ES2BF	100	2.0	55	50	5.0	2.0	1	35	SMAF
ES2DF	200	2.0	55	50	5.0	2.0	1	35	SMAF
ES2GF	400	2.0	55	50	5.0	2.0	1.25	35	SMAF
ES2JF	600	2.0	55	50	5.0	2.0	1.7	35	SMAF



超快恢复二极管
Ultra-Fast Recovery Rectifier

UF5402-ES3JF

型号	最高反向峰值电压	最大平均整流电流		最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
3.0AMP-ULTRA-FAST RECOVERY RECTIFIER/3.0A 超快恢复二极管									
UF5402	200	3.0	55	150	10.0	3.0	1.0	50	DO-27
UF5404	400	3.0	55	150	10.0	3.0	1.0	50	DO-27
UF5408	1200	3.0	55	150	10.0	3.0	1.7	75	DO-27
ES3A	50	3.0	55	125	5.0	3.0	0.95	35	SMB/SMC
ES3B	100	3.0	55	125	5.0	3.0	0.95	35	SMB/SMC
ES3C	250	3.0	55	125	5.0	3.0	0.95	35	SMB/SMC
ES3D	200	3.0	55	125	5.0	3.0	0.95	35	SMB/SMC
ES3E	300	3.0	55	125	5.0	3.0	1.25	35	SMB/SMC
ES3G	400	3.0	55	125	5.0	3.0	1.25	35	SMB/SMC
ES3J	600	3.0	55	125	5.0	3.0	1.25	35	SMB/SMC
ES3AF	50	3.0	55	100	5.0	3.0	1	35	SMAF
ES3BF	100	3.0	55	100	5.0	3.0	1	35	SMAF
ES3DF	200	3.0	55	100	5.0	3.0	1	35	SMAF
ES3GF	400	3.0	55	100	5.0	3.0	1.25	35	SMAF
ES3JF	600	3.0	55	100	5.0	3.0	1.7	35	SMAF



[Switching Power Supply]



[LED Driver]



[Inverters]



[Lighting]

特快恢复二极管
Super Fast Rectifiers

SF11-ES5J

CTK 通科电子
TONGKE ELECTRONIC

	最高反向峰 偏电压	最大平均整流电流		最大峰值浪涌 电流	最大反向漏 电流	正向压降		最大反向恢 复时间	
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA		IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav	°C	Apk	UAds	Apk	Vpk	ns	
1.0AMP SUPER FAST RECTIFIERS/1.0A 特快恢复二极管									
SF11	50	1.0	55	30	5.0	1.0	0.95	35	DO-41
SF12	100	1.0	55	30	5.0	1.0	0.95	35	DO-41
SF13	150	1.0	55	30	5.0	1.0	0.95	35	DO-41
SF14	200	1.0	55	30	5.0	1.0	0.95	35	DO-41
SF15	300	1.0	55	30	5.0	1.0	1.25	35	DO-41
SF16	400	1.0	55	30	5.0	1.0	1.25	35	DO-41
SF18	600	1.0	55	30	5.0	1.0	1.25	35	DO-41

2.0AMP SUPER FAST RECTIFIERS /2.0A 特快恢复二极管									
SF21	50	2.0	55	75	5.0	2.0	0.95	35	DO-15
SF22	100	2.0	55	75	5.0	2.0	0.95	35	DO-15
SF23	150	2.0	55	75	5.0	2.0	0.95	35	DO-15
SF24	200	2.0	55	75	5.0	2.0	0.95	35	DO-15
SF25	300	2.0	55	75	5.0	2.0	1.25	35	DO-15
SF26	400	2.0	55	75	5.0	2.0	1.25	35	DO-15
SF28	600	2.0	55	75	5.0	2.0	1.25	35	DO-15

3.0AMP SUPER FAST RECTIFIERS/3.0A 特快恢复二极管									
SF31	50	3.0	55	125	5.0	3.0	0.95	35	DO-27
SF32	100	3.0	55	125	5.0	3.0	0.95	35	DO-27
SF33	150	3.0	55	125	5.0	3.0	0.95	35	DO-27
SF34	200	3.0	55	125	5.0	3.0	0.95	35	DO-27
SF35	300	3.0	55	125	5.0	3.0	1.25	35	DO-27
SF36	400	3.0	55	125	5.0	3.0	1.25	35	DO-27
SF38	600	3.0	55	125	5.0	3.0	1.25	35	DO-27

5.0AMP -SUPER FAST RECTIFIERS/5.0A 特快恢复二极管									
SF51	50	5.0	55	125	5.0	5.0	0.95	35	DO-27
SF52	100	5.0	55	125	5.0	5.0	0.95	35	DO-27
SF53	150	5.0	55	125	5.0	5.0	0.95	35	DO-27
SF54	200	5.0	55	125	5.0	5.0	0.95	35	DO-27
SF55	300	5.0	55	125	5.0	5.0	0.95	35	DO-27
SF56	400	5.0	55	125	5.0	5.0	1.25	35	DO-27
SF58	600	5.0	55	125	5.0	5.0	1.25	35	DO-27
ESSA	50	5.0	55	125	5.0	5.0	0.95	35	SMB
ESSB	100	5.0	55	125	5.0	5.0	0.95	35	SMB
ESSC	150	5.0	55	125	5.0	5.0	0.95	35	SMB
ESSD	200	5.0	55	125	5.0	5.0	0.95	35	SMB
ESSE	300	5.0	55	125	5.0	5.0	0.95	35	SMB
ESSG	400	5.0	55	125	5.0	5.0	1.25	35	SMB
ESSJ	600	5.0	55	125	5.0	5.0	1.25	35	SMB

TYPE	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	Packaging
	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Wave Resistive Load 60Hz	Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	
	PRV	Io@TA	IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav °C	Apk	UAds	Apk	Vpk	ns	
6.0AMP SUPER FAST RECTIFIERS/6.0A 特快恢复二极管								
SF61	50	6.0	55	125	5.0	6.0	0.95	35 R-6
SF62	100	6.0	55	125	5.0	6.0	0.95	35 R-6
SF63	200	6.0	55	125	5.0	6.0	0.95	35 R-6
SF64	300	6.0	55	125	5.0	6.0	0.95	35 R-6
SF66	400	6.0	55	125	5.0	6.0	1.25	35 R-6
SF68	600	6.0	55	125	5.0	6.0	1.25	35 R-6

1.0AMP -FAST RECOVERY RECTIFIER /1.0A 快恢复二极管								
FR101	50	1.0	75	30	5.0	1.0	1.3	150 DO-41
FR102	100	1.0	75	30	5.0	1.0	1.3	150 DO-41
FR103	200	1.0	75	30	5.0	1.0	1.3	150 DO-41
FR104	400	1.0	75	30	5.0	1.0	1.3	150 DO-41
FR105	600	1.0	75	30	5.0	1.0	1.3	250 DO-41
FR106	800	1.0	75	30	5.0	1.0	1.3	500 DO-41
FR107	1000	1.0	75	30	5.0	1.0	1.3	500 DO-41
RS1A	50	1.0	75	30	5.0	1.0	1.3	150 SMA
RS1B	100	1.0	75	30	5.0	1.0	1.3	150 SMA
RS1D	200	1.0	75	30	5.0	1.0	1.3	150 SMA
RS1G	400	1.0	75	30	5.0	1.0	1.3	150 SMA
RS1J	600	1.0	75	30	5.0	1.0	1.3	250 SMA
RS1K	800	1.0	75	30	5.0	1.0	1.3	500 SMA
RS1M	1000	1.0	75	30	5.0	1.0	1.3	500 SMA
RS1AF	50	1.0	75	30	5.0	1.0	1.3	150 SMAF
RS1BF	100	1.0	75	30	5.0	1.0	1.3	150 SMAF
RS1DF	200	1.0	75	30	5.0	1.0	1.3	150 SMAF
RS1GF	400	1.0	75	30	5.0	1.0	1.3	150 SMAF
RS1JF	600	1.0	75	30	5.0	1.0	1.3	250 SMAF
RS1KF	800	1.0	75	30	5.0	1.0	1.3	500 SMAF
RS1MF	1000	1.0	75	30	5.0	1.0	1.3	500 SMAF

1.5AMP -FAST RECOVERY RECTIFIER /1.5A 快恢复二极管								
FR151	50	1.5	75	60	5.0	1.5	1.3	150 DO-15
FR152	100	1.5	75	60	5.0	1.5	1.3	150 DO-15
FR153	200	1.5	75	60	5.0	1.5	1.3	150 DO-15
FR154	400	1.5	75	60	5.0	1.5	1.3	150 DO-15
FR155	600	1.5	75	60	5.0	1.5	1.3	250 DO-15
FR156	800	1.5	75	60	5.0	1.5	1.3	500 DO-15
FR157	1000	1.5	75	60	5.0	1.5	1.3	500 DO-15

型号	最高反向峰值电压	最大平均整流电流	最大峰值浪涌电流	最大反向漏电流	正向压降		最大反向恢复时间	封装形式
TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @Half-Load Resistive Load 60Hz	Maximum Forward Peak Surge Current @8.3ms Superimposed	Maximum Reverse Current @PRV @25CTa	Maximum Forward Voltage @25CTa		Maximum Reverse Recovery Time	Packaging
	PRV	Io@TA	IFM(Surge)	IR	IFM	VFM	Trr	
	Vpk	Aav °C	Apk	UAds	Apk	Vpk	ns	
2.0AMP-FASTRECOVERY RECTIFIER/2.0A 快恢复二极管								
FR201	50	2.0 1.0	75	70	5.0	2.0	1.3	150 DO-15
FR202	100	2.0 1.0	75	70	5.0	2.0	1.3	150 DO-15
FR203	200	2.0 1.0	75	70	5.0	2.0	1.3	150 DO-15
FR204	400	2.0 1.0	75	70	5.0	2.0	1.3	150 DO-15
FR205	600	2.0 1.0	75	70	5.0	2.0	1.3	250 DO-15
FR206	800	2.0 1.0	75	70	5.0	2.0	1.3	500 DO-15
FR207	1000	2.0 1.0	75	70	5.0	2.0	1.3	500 DO-15
RS2A	50	2.0 1.0	75	70	5.0	2.0	1.3	150 SMA/SMB
RS2B	100	2.0 1.0	75	70	5.0	2.0	1.3	150 SMA/SMB
RS2D	200	2.0 1.0	75	70	5.0	2.0	1.3	150 SMA/SMB
RS2G	400	2.0 1.0	75	70	5.0	2.0	1.3	150 SMA/SMB
RS2J	600	2.0 1.0	75	70	5.0	2.0	1.3	250 SMA/SMB
RS2K	800	2.0 1.0	75	70	5.0	2.0	1.3	500 SMA/SMB
RS2M	1000	2.0 1.0	75	70	5.0	2.0	1.3	500 SMA/SMB
RS2AF	50	2.0 1.0	75	50	5.0	2.0	1.3	150 SMAF
RS2BF	100	2.0 1.0	75	50	5.0	2.0	1.3	150 SMAF
RS2DF	200	2.0 1.0	75	50	5.0	2.0	1.3	150 SMAF
RS2GF	400	2.0 1.0	75	50	5.0	2.0	1.3	150 SMAF
RS2JK	600	2.0 1.0	75	50	5.0	2.0	1.3	250 SMAF
RS2KF	800	2.0 1.0	75	50	5.0	2.0	1.3	500 SMAF
RS2MF	1000	2.0 1.0	75	50	5.0	2.0	1.3	500 SMAF

3.0AMP-FASTRECOVERY RECTIFIER/3.0A 快恢复二极管								
FR301	50	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR302	100	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR303	200	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR304	400	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR305	600	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR306	800	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
FR307	1000	1.0	75	200	10.0 10.0	3.0	1.3	500 DO-27
RS3A	50	1.0	75	200	10.0 10.0	3.0	1.3	150 SMB/SMC
RS3B	100	1.0	75	200	10.0 10.0	3.0	1.3	150 SMB/SMC
RS3D	200	3.0	75	200	10.0 10.0	3.0	1.3	150 SMB/SMC
RS3G	400	3.0	75	200	10.0 10.0	3.0	1.3	150 SMB/SMC
RS3M	1000	3.0	75	200	10.0 10.0	3	1.3	500 SMB/SMC
RS3AF	50	3.0	75	100	5.0 5.0	3	1.3	150 SMAF
RS3BF	100	3.0	75	100	5.0 5.0	3	1.3	150 SMAF
RS3DF	200	3.0	75	100	5.0 5.0	3	1.3	150 SMAF
RS3GF	400	3.0	75	100	5.0 5.0	3	1.3	150 SMAF
RS3JF	600	3.0	75	100	5.0 5.0	3	1.3	250 SMAF
RS3KF	800	3.0	75	100	5.0 5.0	3	1.3	250 SMAF
RS3MF	1000	3.0	75	100	5.0 5.0	3	1.3	250 SMAF

Type		Marking		VRWM	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamping Voltage	Peak Pulse Current
					VBR @ IT					
					Min	Max				
Uni	Bi	Uni	Bi	V	V	V	mA	µA	V	A
SMF5.0A	SMF5.0CA	AE	CAE	5	6.4	7	10	200	9.2	21.7
SMF6.0A	SMF6.0CA	AG	CAG	6	6.67	7.37	10	100	10.3	19.4
SMF6.5A	SMF6.5CA	AK	CAK	6.5	7.22	7.98	10	75	11.2	17.9
SMF7.0A	SMF7.0CA	AM	CAM	7	7.78	8.6	10	50	12	16.7
SMF7.5A	SMF7.5CA	AP	CAP	7.5	8.33	9.21	1	50	12.9	15.5
SMF8.0A	SMF8.0CA	AR	CAR	8	8.89	9.83	1	25	13.6	14.7
SMF8.5A	SMF8.5CA	AT	CAT	8.5	9.44	10.4	1	10	14.4	13.9
SMF9.0A	SMF9.0CA	AV	CAV	9	10	11.1	1	5	15.4	13
SMF10A	SMF10CA	AX	CAX	10	11.1	12.3	1	2.5	17	11.8
SMF11A	SMF11CA	AZ	CAZ	11	12.2	13.5	1	2.5	18.2	11
SMF12A	SMF12CA	BE	CBE	12	13.3	14.7	1	2.5	19.9	10.1
SMF13A	SMF13CA	BG	CBG	13	14.4	15.9	1	1	21.5	9.3
SMF14A	SMF14CA	BK	CBK	14	15.6	17.2	1	1	23.2	8.6
SMF15A	SMF15CA	BM	CBM	15	16.7	18.5	1	1	24.4	8.2
SMF16A	SMF16CA	BP	CBP	16	17.8	19.7	1	1	26	7.7
SMF17A	SMF17CA	BR	CBR	17	18.9	20.9	1	1	27.6	7.2
SMF18A	SMF18CA	BT	CBT	18	20	22.1	1	1	29.2	6.8
SMF20A	SMF20CA	BV	CBV	20	22.2	24.5	1	1	32.4	6.2
SMF22A	SMF22CA	BX	CBX	22	24.4	26.9	1	1	35.5	5.6
SMF24A	SMF24CA	BZ	CBZ	24	26.7	29.5	1	1	38.9	5.1
SMF26A	SMF26CA	CE	CCE	26	28.9	31.9	1	1	42.1	4.8
SMF28A	SMF28CA	CG	CCG	28	31.1	34.4	1	1	45.4	4.4
SMF30A	SMF30CA	CK	CKK	30	33.3	36.8	1	1	48.4	4.1
SMF33A	SMF33CA	CM	CCM	33	36.7	40.6	1	1	53.3	3.8
SMF36A	SMF36CA	CP	CCP	36	40	44.2	1	1	58.1	3.4
SMF40A	SMF40CA	CR	CCR	40	44.4	49.1	1	1	64.5	3.1
SMF43A	SMF43CA	CT	CCT	43	47.8	52.8	1	1	69.4	2.9
SMF45A	SMF45CA	CV	CCV	45	50	55.3	1	1	72.7	2.8
SMF48A	SMF48CA	CX	CCX	48	53.3	58.9	1	1	77.4	2.6
SMF51A	SMF51CA	CZ	CCZ	51	56.7	62.7	1	1	82.4	2.4
SMF54A	SMF54CA	DE	CDE	54	60	66.3	1	1	87.1	2.3
SMF58A	SMF58CA	DG	CDG	58	64.4	71.2	1	1	93.6	2.1
SMF60A	SMF60CA	DK	CDK	60	66.7	73.7	1	1	96.8	1.8
SMF64A	SMF64CA	DM	CDM	64	71.1	78.6	1	1	103	1.7
SMF70A	SMF70CA	DP	CDP	70	77.8	86	1	1	113	1.5
SMF75A	SMF75CA	DR	CDR	75	83.3	92.1	1	1	121	1.4
SMF78A	SMF78CA	DT	CDT	78	86.7	95.8	1	1	126	1.4
SMF85A	SMF85CA	DV	CDV	85	94.4	104	1	1	137	1.3
SMF90A	SMF90CA	DX	CDX	90	100	111	1	1	146	1.2
SMF100A	SMF100CA	DZ	CDZ	100	111	123	1	1	162	1.1
SMF110A	SMF110CA	EE	CEE	110	122	135	1	1	177	1
SMF120A	SMF120CA	EG	CEG	120	133	147	1	1	193	0.9
SMF130A	SMF130CA	EK	CEK	130	144	159	1	1	209	0.8
SMF150A	SMF150CA	EM	CEM	150	167	185	1	1	243	0.7
SMF160A	SMF160CA	EP	CEP	160	178	197	1	1	259	0.7
SMF170A	SMF170CA	ER	CER	170	189	209	1	1	275	0.6
SMF180A	SMF180CA	ET	CET	180	201	222	1	1	292	0.5
SMF200A	SMF200CA	EX	CEX	200	224	247	1	1	324	0.5
SMF220A	SMF220CA	E22	Ce22	220	246	272	1	1	356	0.5

TVS-SMAJ

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)										
DEVICE TYPE	DEVICE MARKING CODE		BREAKDOWN VOLTAGE V _{BR} AT I _T (1)	TEST CURRENT I _T (mA)	STAND-OFF VOLTAGE V _{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V _{WM} I _{PRM} (A) (2)	MAXIMUM PEAK PULSE SURGE CURRENT I _{PPM} (A) (2)	MAXIMUM CLAMPING VOLTAGE AT I _{PPM} V _C (V)		
SMAJ5.0A /CA	AE	WE	6.40	7.07	10	5.0	800	43.5	9.2	
SMAJ6.0A /CA	AG	WG	6.67	7.37	10	6.0	800	38.8	10.3	
SMAJ6.5A /CA	AK	WK	7.22	7.98	10	6.5	500	35.7	11.2	
SMAJ7.0A /CA	AM	WM	7.78	8.60	10	7.0	200	33.3	12.0	
SMAJ7.5A /CA	AP	WP	8.33	9.21	1.0	7.5	100	31.0	12.9	
SMAJ8.0A /CA	AR	WR	8.89	9.83	1.0	8.0	50	29.4	13.6	
SMAJ8.5A /CA	AT	WT	9.44	10.4	1.0	8.5	10	27.8	14.4	
SMAJ9.0A /CA	AV	WV	10.0	11.1	1.0	9.0	5.0	26.0	15.4	
SMAJ10A /CA	AX	WX	11.1	12.3	1.0	10	1.0	23.5	17.0	
SMAJ11A /CA	AZ	WZ	12.2	13.5	1.0	11	1.0	22.0	18.2	
SMAJ12A /CA	BE	XE	13.3	14.7	1.0	12	1.0	20.1	19.9	
SMAJ13A /CA	BG	XG	14.4	15.9	1.0	13	1.0	18.6	21.5	
SMAJ14A /CA	BK	XK	15.6	17.2	1.0	14	1.0	17.2	23.2	
SMAJ15A /CA	BM	XM	16.7	18.5	1.0	15	1.0	16.4	24.4	
SMAJ16A /CA	BP	XP	17.8	19.7	1.0	16	1.0	15.4	26.0	
SMAJ17A /CA	BR	XR	18.9	20.9	1.0	17	1.0	14.5	27.6	
SMAJ18A /CA	BT	XT	20.0	22.1	1.0	18	1.0	13.7	29.2	
SMAJ20A /CA	BV	XV	22.2	24.5	1.0	20	1.0	12.3	32.4	
SMAJ22A /CA	BX	XX	24.4	26.9	1.0	22	1.0	11.3	35.5	
SMAJ24A /CA	BZ	XZ	26.7	29.5	1.0	24	1.0	10.3	38.9	
SMAJ26A /CA	CE	YE	28.9	31.9	1.0	26	1.0	9.5	42.1	
SMAJ28A /CA	CG	YG	31.1	34.4	1.0	28	1.0	8.8	45.4	
SMAJ30A /CA	CK	YK	33.3	36.8	1.0	30	1.0	8.3	48.4	
SMAJ33A /CA	CM	YM	36.7	40.6	1.0	33	1.0	7.5	53.3	
SMAJ36A /CA	CP	YP	40.0	44.2	1.0	36	1.0	6.9	58.1	
SMAJ40A /CA	CR	YR	44.4	49.1	1.0	40	1.0	6.2	64.5	
SMAJ43A /CA	CT	YT	47.8	52.8	1.0	43	1.0	5.8	69.4	
SMAJ45A /CA	CV	YV	50.0	55.3	1.0	45	1.0	5.5	72.7	
SMAJ48A /CA	CX	YX	53.3	58.9	1.0	48	1.0	5.2	77.4	
SMAJ51A /CA	CZ	YZ	56.7	62.7	1.0	51	1.0	4.9	82.4	
SMAJ54A /CA	RE	ZE	60.0	66.3	1.0	54	1.0	4.6	87.1	
SMAJ58A /CA	RG	ZG	64.4	71.2	1.0	58	1.0	4.3	93.6	
SMAJ60A /CA	RK	ZK	66.7	73.7	1.0	60	1.0	4.1	96.8	
SMAJ64A /CA	RM	ZM	71.1	78.6	1.0	64	1.0	3.9	103	
SMAJ70A /CA	RP	ZP	77.8	86.0	1.0	70	1.0	3.5	113	
SMAJ75A /CA	RR	ZR	83.3	92.1	1.0	75	1.0	3.3	121	
SMAJ78A /CA	RT	ZT	86.7	95.8	1.0	78	1.0	3.2	126	
SMAJ85A /CA	RV	ZV	94.4	104	1.0	85	1.0	2.2	137	
SMAJ90A /CA	RX	ZX	100	111	1.0	90	1.0	2.1	146	
SMAJ100A /CA	RZ	ZZ	111	123	1.0	100	1.0	1.9	162	
SMAJ110A /CA	SE	VE	122	135	1.0	110	1.0	1.7	177	
SMAJ120A /CA	VG	VG	133	147	1.0	120	1.0	1.6	193	
SMAJ130A /CA	VK	VK	144	159	1.0	130	1.0	1.4	209	
SMAJ150A /CA	VM	VM	167	185	1.0	150	1.0	1.2	243	
SMAJ160A /CA	SP	VP	178	197	1.0	160	1.0	1.2	259	
SMAJ170A /CA	SR	VR	189	209	1.0	170	1.0	1.09	275	
SMAJ188A /CA	SS	VS	209	231	1.0	188	1.0	0.91	328	

Notes

- (1) Pulse test: t_p ≤ 50 ms
- (2) Surge current waveform per fig. 3 and derate per fig. 2
- (3) For bi-directional types having V_{BR} of 10 V and less, the I₀ limit is doubled
- (4) All terms and symbols are consistent with ANSI/IEEE C62.35
- (5) For the bi-directional SMAJ5.0CA, the maximum V_{BR} is 7.25 V
- (6) V_P = 3.5 V at I_P = 25 A (uni-directional only)

TVS-SMBJ

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
DEVICE TYPE MODIFIED "J" BEND LEAD	DEVICE MARKING CODE		BREAKDOWN VOLTAGE V _{BR} AT I _T (1)		TEST CURRENT I _T (mA)	STAND-OFF VOLTAGE V _{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V _{WM} I _D (μA) (2)	MAXIMUM PEAK PULSE SURGE CURRENT I _{PPM} (A) (2)	MAXIMUM CLAMPING VOLTAGE AT I _{PPM} V _C (V)
	UNI	BI	MIN	MAX					
(+)SMBJ5.0	KD	KD	6.40	7.82	10	5.0	800	62.5	9.6
(+)SMBJ5.0A (5)	KE	KE	6.40	7.07	10	5.0	800	65.2	9.2
(+)SMBJ6.0	KF	KF	6.67	8.15	10	6.0	800	52.6	11.4
(+)SMBJ6.0A	KG	KG	6.67	7.37	10	6.0	800	58.3	10.3
(+)SMBJ6.5	KH	AH	7.22	8.82	10	6.5	500	48.8	12.3
(+)SMBJ6.5A	KK	AK	7.22	7.98	10	6.5	500	53.6	11.2
(+)SMBJ7.0	KL	KL	7.78	9.51	10	7.0	200	45.1	13.3
(+)SMBJ7.0A	KM	KM	7.78	8.60	10	7.0	200	50.0	12.0
(+)SMBJ7.5	KN	AN	8.33	10.2	1.0	7.5	100	42.0	14.3
(+)SMBJ7.5A	KP	AP	8.33	9.21	1.0	7.5	100	46.5	12.9
(+)SMBJ8.0	KQ	AQ	8.89	10.9	1.0	8.0	50	40.0	15.0
(+)SMBJ8.0A	KR	AR	8.89	9.83	1.0	8.0	50	44.1	13.6
(+)SMBJ8.5	KS	AS	9.44	11.5	1.0	8.5	20	37.7	15.9
(+)SMBJ8.5A	KT	AT	9.44	10.4	1.0	8.5	20	41.7	14.4
(+)SMBJ9.0	KU	AU	10.0	12.2	1.0	9.0	10	35.5	16.9
(+)SMBJ9.0A	KV	AV	10.0	11.1	1.0	9.0	10	39.0	15.4
(+)SMBJ10	KW	AW	11.1	13.6	1.0	10	5.0	31.9	18.8
(+)SMBJ10A	KX	AX	11.1	12.3	1.0	10	5.0	35.3	17.0
(+)SMBJ11	KY	KY	12.2	14.9	1.0	11	5.0	29.9	20.1
(+)SMBJ11A	KZ	KZ	12.2	13.5	1.0	11	5.0	33.0	18.2
(+)SMBJ12	LD	BD	13.3	16.3	1.0	12	5.0	27.3	22.0
(+)SMBJ12A	LE	BE	13.3	14.7	1.0	12	5.0	30.2	19.9
(+)SMBJ13	LF	LF	14.4	17.6	1.0	13	1.0	25.2	23.8
(+)SMBJ13A	LG	LG	14.4	15.9	1.0	13	1.0	27.9	21.5
(+)SMBJ14	LH	BH	15.6	19.1	1.0	14	1.0	23.3	25.8
(+)SMBJ14A	LK	BK	15.6	17.2	1.0	14	1.0	25.9	23.2
(+)SMBJ15	LL	BL	16.7	20.4	1.0	15	1.0	22.3	26.9
(+)SMBJ15A	LM	BM	16.7	18.5	1.0	15	1.0	24.6	24.4
(+)SMBJ16	LN	LN	17.8	21.8	1.0	16	1.0	20.8	28.8
(+)SMBJ16A	LP	LM	17.8	19.7	1.0	16	1.0	23.1	26.0
(+)SMBJ17	LQ	LQ	18.9	23.1	1.0	17	1.0	19.7	30.5
(+)SMBJ17A	LR	LR	18.9	20.9	1.0	17	1.0	21.7	27.6
(+)SMBJ18	LS	BS	20.0	24.4	1.0	18	1.0	18.6	32.2
(+)SMBJ18A	LT	BT	20.0	22.1	1.0	18	1.0	20.5	29.2
(+)SMBJ20	LU	LU	22.2	27.1	1.0	20	1.0	16.8	35.8
(+)SMBJ20A	LV	LV	22.2	24.5	1.0	20	1.0	18.5	32.4
(+)SMBJ22	LW	BW	24.4	29.8	1.0	22	1.0	15.2	39.4
(+)SMBJ22A	LX	BX	24.4	26.9	1.0	22	1.0	16.9	35.5
(+)SMBJ24	LY	BY	26.7	32.6	1.0	24	1.0	14.0	43.0
(+)SMBJ24A	LZ	BZ	26.7	29.5	1.0	24	1.0	15.4	38.9
(+)SMBJ26	MD	CD	28.9	35.3	1.0	26	1.0	12.9	46.6
(+)SMBJ26A	ME	CE	28.9	31.9	1.0	26	1.0	14.3	42.1
(+)SMBJ28	MF	MF	31.1	38.0	1.0	28	1.0	12.0	50.0
(+)SMBJ28A	MG	MG	31.1	34.4	1.0	28	1.0	13.2	45.4
(+)SMBJ30	MH	CH	33.3	40.7	1.0	30	1.0	11.2	53.5
(+)SMBJ30A	MK	CK	33.3	36.8	1.0	30	1.0	12.4	48.4
(+)SMBJ33	ML	CL	36.7	44.9	1.0	33	1.0	10.2	59.0
(+)SMBJ33A	MM	CM	36.7	40.6	1.0	33	1.0	11.3	53.3
(+)SMBJ36	MN	CN	40.0	48.9	1.0	36	1.0	9.3	64.3
(+)SMBJ36A	MP	CP	40.0	44.2	1.0	36	1.0	10.3	58.1
(+)SMBJ40	MQ	CQ	44.4	54.3	1.0	40	1.0	8.4	71.4
(+)SMBJ40A	MR	CR	44.4	49.1	1.0	40	1.0	9.3	64.5

TVS-SMBJ

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
DEVICE TYPE MODIFIED "J" BEND LEAD	DEVICE MARKING CODE		BREAKDOWN VOLTAGE V _{BR} AT I _T (1)		TEST CURRENT I _T (mA)	STAND-OFF VOLTAGE V _{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V _{WM} I _D (μA) (2)	MAXIMUM PEAK PULSE SURGE CURRENT I _{PPM} (A) (2)	MAXIMUM CLAMPING VOLTAGE AT I _{PPM} V _C (V)
	UNI	BI	MIN	MAX					
(+)SMBJ43	MS	CS	47.8	58.4	1.0	43	1.0	7.8	76.7
(+)SMBJ43A	MT	CT	47.8	52.8	1.0	43	1.0	8.6	69.4
(+)SMBJ45	MU	MU	50.0	61.1	1.0	45	1.0	7.5	80.3
(+)SMBJ45A	MV	MV	50.0	55.3	1.0	45	1.0	8.3	72.7
(+)SMBJ48	MW	MW	53.3	65.1	1.0	48	1.0	7.0	85.5
(+)SMBJ48A	MX	MX	53.3	58.9	1.0	48	1.0	7.8	77.4
(+)SMBJ51	MY	MY	56.7	69.3	1.0	51	1.0	6.6	91.1
(+)SMBJ51A	MZ	MZ	56.7	62.7	1.0	51	1.0	7.3	82.4
(+)SMBJ54	ND	ND	60.0	73.3	1.0	54	1.0	6.2	96.3
(+)SMBJ54A	NE	NE	60.0	66.3	1.0	54	1.0	6.9	87.1
(+)SMBJ58	NF	NF	64.4	78.7	1.0	58	1.0	5.8	103
(+)SMBJ58A	NG	NG	64.4	71.2	1.0	58	1.0	6.4	93.6
(+)SMBJ60	NH	NH	66.7	81.5	1.0	60	1.0	5.6	107
(+)SMBJ60A	NK	NK	66.7	73.7	1.0	60	1.0	6.2	96.8
(+)SMBJ64	NL	NL	71.1	86.9	1.0	64	1.0	5.3	114
(+)SMBJ64A	NM	NM	71.1	78.6	1.0	64	1.0	5.8	103
(+)SMBJ70	NN	NN	77.8	95.1	1.0	70	1.0	4.8	125
(+)SMBJ70A	NP	NP	77.8	86.0	1.0	70	1.0	5.3	113
(+)SMBJ75	NQ	NQ	83.3	102	1.0	75	1.0	4.5	134
(+)SMBJ75A	NR	NR	83.3	92.1	1.0	75	1.0	5.0	121
(+)SMBJ78	NS	NS	86.7	106	1.0	78	1.0	4.3	139
(+)SMBJ78A	NT	NT	86.7	95.8	1.0	78	1.0	4.8	126
(+)SMBJ85	NU	NU	94.4	115	1.0	85	1.0	4.0	151
(+)SMBJ85A	NV	NV	94.4	104	1.0	85	1.0	4.4	137
(+)SMBJ90	NW	NW	100	122	1.0	90	1.0	3.8	160
(+)SMBJ90A	NX	NX	100	111	1.0	90	1.0	4.1	146
(+)SMBJ100	NY	NY	111	136	1.0	100	1.0	3.4	179
(+)SMBJ100A	NZ	NZ	111	123	1.0	100	1.0	3.7	162
(+)SMBJ110	PD	PD	122	149	1.0	110	1.0	3.1	196
(+)SMBJ110A	PE	PE	122	135	1.0	110	1.0	3.4	177
(+)SMBJ120	PF	PF	133	163	1.0	120	1.0	2.8	214
(+)SMBJ120A	PG	PG	133	147	1.0	120	1.0	3.1	193
(+)SMBJ130	PH	PH	144	176	1.0	130	1.0	2.6	231
(+)SMBJ130A	PK	PK	144	159	1.0	130	1.0	2.9	209
(+)SMBJ150	PL	PL	167	204	1.0	150	1.0	2.2	268
(+)SMBJ150A	PM	PM	167	185	1.0	150	1.0	2.5	243
(+)SMBJ160	PN	PN	178	218	1.0	160	1.0	2.1	287
(+)SMBJ160A	PP	PP	178	197	1.0	160	1.0	2.3	259
(+)SMBJ170	PQ	PQ	189	231	1.0	170	1.0	2.0	304
(+)SMBJ170A	PR	PR	189	209	1.0	170	1.0	2.2	275
SMBJ188	PT	PT	209	255	1.0	188	1.0	1.7	344
SMBJ188A	PS	PS	209	231	1.0	188	1.0	2.0	328

Notes:

(1) Pulse test: t_p ≤ 50 ms

(2) Surge current waveform per Fig. 3 and derate per Fig. 2

(3) For bi-directional types having V_{WM} of 10 V and less, the I_D limit is doubled

(4) All terms and symbols are consistent with ANSI/IEEE C62.35

(5) For the bi-directional SMBG/SMBJ5.0CA, the maximum V_{BR} is 7.25 V(6) V_F = 3.5 V at I_F = 50 A (uni-directional only)

(7) Underwriters laboratory recognition for the classification of protectors (QVGQ2) under the UL standard for safety 497B and file number E136766 for both uni-directional and bi-directional devices

TVS-SMCJ

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)

DEVICE TYPE MODIFIED "J" BEND LEAD	DEVICE MARKING CODE		BREAKDOWN VOLTAGE V _{BR} AT I _T (1)		TEST CURRENT I _T (mA)	STAND-OFF VOLTAGE V _{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V _{WM} I ₀ (μA) (2)	MAXIMUM PEAK PULSE SURGE CURRENT I _{PPM} (A) (2)	MAXIMUM CLAMPING VOLTAGE AT I _{PPM} V _C (V)
	UNI	BI	MIN.	MAX.					
(H) SMCJ5.0A (5)	GDE	GDE	6.40	7.07	10	5.0	1000	163.0	9.2
(H) SMCJ6.0A	GDG	GDG	6.67	7.37	10	6.0	1000	145.6	10.3
(H) SMCJ6.5A	GDK	BDK	7.22	7.98	10	6.5	500	133.9	11.2
(H) SMCJ7.0A	GDM	GDM	7.78	8.60	10	7.0	200	125.0	12.0
(H) SMCJ7.5A	GDP	BDP	8.33	9.21	1.0	7.5	100	116.3	12.9
(H) SMCJ8.0A	GDR	BDR	8.89	9.83	1.0	8.0	50	110.3	13.6
(H) SMCJ8.5A	GDT	BDT	9.44	10.4	1.0	8.5	20	104.2	14.4
(H) SMCJ9.0A	GDV	BDV	10.0	11.1	1.0	9.0	10	97.4	15.4
(H) SMCJ10A	GDX	BDX	11.1	12.3	1.0	10	5.0	88.2	17.0
(H) SMCJ11A	GDZ	GDZ	12.2	13.5	1.0	11	5.0	82.4	18.2
(H) SMCJ12A	GEE	BEE	13.3	14.7	1.0	12	5.0	75.4	19.9
(H) SMCJ13A	GEG	GEG	14.4	15.9	1.0	13	1.0	69.6	21.5
(H) SMCJ14A	GEK	BEK	15.6	17.2	1.0	14	1.0	64.7	23.2
(H) SMCJ15A	GEM	BEM	16.7	18.5	1.0	15	1.0	61.5	24.4
(H) SMCJ16A	GEP	GEP	17.8	19.7	1.0	16	1.0	57.7	26.0
(H) SMCJ17A	GER	GER	18.9	20.9	1.0	17	1.0	54.3	27.6
(H) SMCJ18A	GET	BET	20.0	22.1	1.0	18	1.0	51.4	29.2
(H) SMCJ20A	GEV	BEV	22.2	24.5	1.0	20	1.0	46.3	32.4
(H) SMCJ22A	GEX	BEX	24.4	26.9	1.0	22	1.0	42.3	35.5
(H) SMCJ24A	GEZ	BEZ	26.7	29.5	1.0	24	1.0	38.6	38.9
(H) SMCJ26A	GFE	BFE	28.9	31.9	1.0	26	1.0	35.6	42.1
(H) SMCJ28A	GFG	BFG	31.1	34.4	1.0	28	1.0	33.0	45.4
(H) SMCJ30A	GFK	BFK	33.3	36.8	1.0	30	1.0	31.0	48.4
(H) SMCJ33A	GFM	BFM	36.7	40.6	1.0	33	1.0	28.1	53.3
(H) SMCJ36A	GFP	BFP	40.0	44.2	1.0	36	1.0	25.8	58.1
(H) SMCJ40A	GFR	BFR	44.4	49.1	1.0	40	1.0	23.3	64.5
(H) SMCJ43A	GFT	BFT	47.8	52.8	1.0	43	1.0	21.6	69.4
(H) SMCJ45A	GFV	GFV	50.0	55.3	1.0	45	1.0	20.6	72.7
(H) SMCJ48A	GFX	GFX	53.3	58.9	1.0	48	1.0	19.4	77.4
(H) SMCJ51A	GFZ	GFZ	56.7	62.7	1.0	51	1.0	18.2	82.4
(H) SMCJ54A	GGE	GGE	60.0	66.3	1.0	54	1.0	17.2	87.1
(H) SMCJ58A	GGG	GGG	64.4	71.2	1.0	58	1.0	16.0	93.6
(H) SMCJ60A	GGK	GGK	66.7	73.7	1.0	60	1.0	15.5	96.8
(H) SMCJ64A	GGM	GGM	71.1	78.6	1.0	64	1.0	14.6	103
(H) SMCJ70A	GGP	GGP	77.8	86.0	1.0	70	1.0	13.3	113
(H) SMCJ75A	GGR	GGR	83.3	92.1	1.0	75	1.0	12.4	121
(H) SMCJ78A	GGT	GGT	86.7	95.8	1.0	78	1.0	11.9	126
(H) SMCJ85A	GGV	GGV	94.4	104	1.0	85	1.0	10.9	137
(H) SMCJ90A	GGX	GGX	100	111	1.0	90	1.0	10.3	146
(H) SMCJ100A	GGZ	GGZ	111	123	1.0	100	1.0	9.3	162
(H) SMCJ110A	GHE	GHE	122	135	1.0	110	1.0	8.5	177
(H) SMCJ120A	GHH	GHH	133	147	1.0	120	1.0	7.8	193
(H) SMCJ130A	GHI	GHI	144	159	1.0	130	1.0	7.2	209
(H) SMCJ150A	GHI	GHI	167	185	1.0	150	1.0	6.2	243
(H) SMCJ160A	GHP	GHP	178	197	1.0	160	1.0	5.8	259
(H) SMCJ170A	GHR	GHR	189	209	1.0	170	1.0	5.5	275
(H) SMCJ188A	GHS	GHS	209	231	1.0	188	1.0	4.6	328

Notes

- (1) Pulse test: t_p ≤ 50 ms
 (2) Surge current waveform per fig. 3 and derate per fig. 2
 (3) For bi-directional types having V_{WM} of 10 V and less, the I₀ limit is doubled
 (4) All terms and symbols are consistent with ANSI/IEEE C62.35
 (5) For the bi-directional SMCJ5.0A, the maximum V_{BR} is 7.25 V
 (6) V_F = 3.5 V at I_F = 100 A (uni-directional only)
 (7) Underwriters laboratory recognition for the classification of protectors (QVGQ2) under the UL standard for safety 497B and file number E136766 for both uni-directional and bi-directional devices



[Routers]



[Consumer electronics]



[Automotive electronics]



[Aerospace]

型号	极性	P _{tot} (mW)	I _C (mA)	BV _{CEO} (V)	BV _{CE(sat)} (V)	BV _{CE(sat)} (V)	Min	Max	V _{CE(sat)} (V)	封装形式	MARKING
S8050	NPN	300	500	40	25	5	120	400	0.6	SOT-23	J3Y
S8550	PNP	300	500	40	25	5	120	400	0.6	SOT-23	Z1Y
S9012	PNP	300	500	40	25	5	120	400	0.6	SOT-23	Z1I
S9013	NPN	300	500	40	25	5	120	400	0.6	SOT-23	J3
S9014	NPN	200	100	50	45	5	200	1000	0.3	SOT-23	J6
S9015	PNP	200	100	50	45	5	200	1000	0.3	SOT-23	J6
S9018	NPN	200	50	30	15	5	70	190	0.5	SOT-23	J8
SS8050	NPN	300	1500	40	25	5	120	400	0.5	SOT-23	Y1
SS8550	PNP	300	1500	40	25	5	120	400	0.5	SOT-23	Y2
MMBT2222A	NPN	300	600	75	40	6	100	300	1	SOT-23	1P
MMBT2907A	PNP	250	600	60	80	5	100	300	1.6	SOT-23	2F
MMBT3904	NPN	200	200	60	40	6	100	300	0.3	SOT-23	1AM
MMBT3906	PNP	200	200	40	40	5	100	300	0.3	SOT-23	2A
MMBT4401	NPN	300	600	60	40	6	100	300	0.4	SOT-23	2K
MMBT4403	PNP	300	600	40	40	5	100	300	0.4	SOT-23	2I
MMBT4901	PNP	300	600	160	150	5	100	300	0.5	SOT-23	2L
MMBT5551	NPN	300	600	180	180	6	100	300	0.2	SOT-23	G1
MMBT442	NPN	350	500	300	330	5	100	200	0.2	SOT-23	1D
MMBT444	NPN	350	300	400	400	6	50	200	0.75	SOT-23	3D
MMBT456	PNP	225	500	80	80	4	100	400	0.25	SOT-23	2GM
MMBT492	PNP	300	500	300	300	5	100	200	0.2	SOT-23	2D
MMBT494	PNP	350	300	400	400	5	80	300	0.3	SOT-23	4D
BC807	PNP	300	500	50	45	5	100	600	0.7	SOT-23	
BC817	NPN	300	500	50	45	5	100	600	0.7	SOT-23	
BC846	NPN	200	100	80	65	6	110	450	0.5	SOT-23	
BC847	NPN	200	100	50	45	6	110	300	0.5	SOT-23	
BC849	NPN	200	100	30	30	6	110	800	0.5	SOT-23	
BC856	PNP	200	100	80	65	5	125	475	0.5	SOT-23	
BC857	PNP	200	100	60	45	5	125	800	0.5	SOT-23	
BC858	PNP	200	100	30	30	5	125	800	0.5	SOT-23	
A44	NPN	500	500	310	335	5	100	300	0.2	SOT-89	
A44	NPN	500	300	400	400	6	50	200	0.75	SOT-89	
A92	PNP	500	500	310	335	5	100	300	0.2	SOT-89	
A94	PNP	500	300	400	400	5	80	300	0.3	SOT-89	
B772	PNP	500	3000	40	30	6	80	400	0.5	SOT-89	
D882	NPN	500	3000	40	30	6	60	400	0.5	SOT-89	

三端稳压器
Three terminal regulator TL431-LM78L18

型号	P _O (mW)	I _O (mA)	V _I (V)	V _{REG} (V)	V _O (V)	封装形式
TL431	500	100	-	-	VREF2.475~2.525	SOT-89
LM78L05	600	100	30	7~20	4.8~5.2	SOT-89
LM78L06	600	100	30	8~20	5.75~6.25	SOT-89
LM78L08	600	100	30	10.5~23	7.7~8.3	SOT-89
LM78L09	600	100	30	11.5~24	8.64~9.36	SOT-89
LM78L12	600	100	35	14.5~27	11.5~12.5	SOT-89
LM78L15	600	100	35	17.5~30	14.4~15.6	SOT-89
LM78L18	600	100	35	20.5~33	17.3~18.7	SOT-89



[Power switch]



[TV]



[Speaker]



[Temperature sensor]

型号	类型	PD(W)	ID(A)	VR(PeakV)	(ID)	ID(A)	VGS(V)	(V)	ID(A)	(S)	VGS(V)	封装形式
2N7002	N-ch MOS	0.225	0.115	60	5	0.5	10	1~2.5	250	0.08	10	SOT-23
2N7002K	N-ch MOS	0.35	0.34	60	5	0.5	10	1~2.5	1000	-	-	SOT-23
2SK3018	N-ch MOS	0.35	0.1	30	8	0.01	4	0.8~1.5	100	0.02	3	SOT-23
BSS123	N-ch MOS	0.35	0.17	100	6	0.17	10	1~2.8	250	0.08	10	SOT-23
BSS136	N-ch MOS	0.35	0.22	50	3.5	0.22	10	0.8~1.5	1000	0.12	10	SOT-23
BSS84	P-ch MOS	0.225	-0.13	-50	10	-0.1	-5	-0.9~-2	-250	0.05	-25	SOT-23
SI2301	P-ch MOS	0.4	-2.3	-20	0.112	-2.8	-4.5	-0.4~-1	-250	6.5+	-5	SOT-23
SI2301S	P-ch MOS	0.35	-2.3	-20	0.112	-2.8	-4.5	-0.4~-1	-250	4+	-5	SOT-23
SI2302	N-ch MOS	0.4	2.1	20	0.06	3.6	4.5	0.65~1.2	50	8+	5	SOT-23
SI2302S	N-ch MOS	0.35	2.1	20	0.06	3.6	4.5	0.65~1.2	50	8+	5	SOT-23
SI2303	P-ch MOS	0.35	-1.9	-30	0.19	-1.9	-10	-1~-3	-250	1	-5	SOT-23
SI2304	N-ch MOS	0.35	3.3	30	0.06	3.2	10	1.2~2.2	250	2.5	4.5	SOT-23
SI2305	P-ch MOS	0.35	-4.1	-12	0.045	-3.5	-4.5	-0.5~-0.9	-250	6	-5	SOT-23
SI2306	N-ch MOS	0.75	3.16	30	0.047	3.5	10	1~3	250	7+	4.5	SOT-23
SI2307	P-ch MOS	1.1	-2.7	-30	0.088	-3.5	-10	-1~-3	-250	7+	-10	SOT-23
SI2310	N-ch MOS	0.35	3	60	0.105	3	10	0.5~2	250	1.4	15	SOT-23
SI2312	N-ch MOS	0.25	5	20	0.0318	5	4.5	0.45~1	250	6+	10	SOT-23
SI2321	P-ch MOS	0.35	-2.9	-20	0.057	-3.3	-4.5	-0.4~-0.9	-250	3	-5	SOT-23
SI2324	N-ch MOS	0.35	2	100	0.234	1.5	10	1.2~2.8	250	2+	20	SOT-23
SI2333	P-ch MOS	0.35	-6	-12	0.028	-5	-4.5	-0.4~-1	-250	16+	-5	SOT-23
A03400	N-ch MOS	0.35	5.8	30	0.035	5.8	10	0.7~1.4	250	8	5	SOT-23
A03400A	N-ch MOS	0.4	5.8	30	0.032	5.8	10	0.7~1.4	250	8	5	SOT-23
A03401	P-ch MOS	0.35	-4.2	-30	0.065	-4.2	-10	-0.7~-1.3	-250	7	-5	SOT-23
A03401A	P-ch MOS	0.4	-4.2	-30	0.06	-4.2	-10	-0.7~-1.3	-250	7	-5	SOT-23
A03402	N-ch MOS	0.35	4	30	0.055	4	10	0.6~1.4	250	8+	15	SOT-23
A03404	N-ch MOS	0.35	5.8	30	0.03	5.8	10	1~3	250	5	5	SOT-23
A03406	N-ch MOS	0.35	3.6	30	0.065	3.6	10	1~3	250	3	5	SOT-23
A03407	P-ch MOS	0.35	-4.1	-30	0.06	-4.1	-10	-1~-3	-250	5.5	-5	SOT-23
A03415	P-ch MOS	0.35	-4	-20	0.05	-4	-4.5	-0.3~-1	-250	8	-5	SOT-23
A03420	N-ch MOS	0.35	6	20	0.024	6	10	0.5~1	250	4	5	SOT-23
A03434	N-ch MOS	0.3	5	30	0.042	5	10	0.6~1	250	15+	5	SOT-23
A08810	N-ch MOS	0.3	7	20	0.026	7	10	0.4~1	250	9	5	SOT-23
A08820	N-ch MOS	0.3	7	20	0.021	7	10	0.5~1.1	250	20+	5	SOT-23
TKL3407	P-ch MOS	0.35	-4.1	-30	0.06	-4.1	-10	-1~-3	-250	5.5	-5	SOT-23-8L
TKL3415	P-ch MOS	0.35	-4	-20	0.05	-4	-4.5	-0.3~-1	-250	16+	-5	SOT-23-8L



[Smart Home]



[EV Chargers]



[DC-DC Converters]



[LED Lighting]



DO-35



DO-41



DO-15



LL-34



SOD-123



DFN2510-10L



SOT-23



DFN1006-2



TOLL



DFN



SOT-89



SOT-223



SOD-523



QFN



TO-252



TO-252-3



TO-262-3



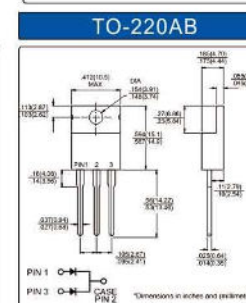
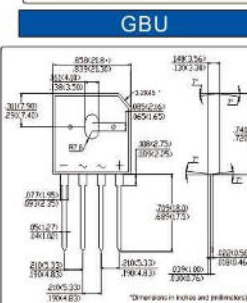
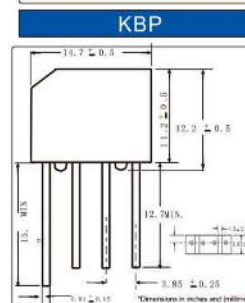
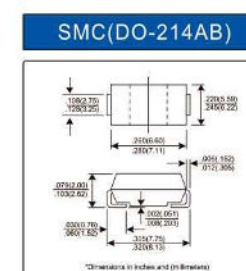
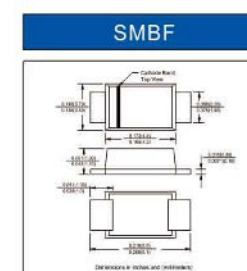
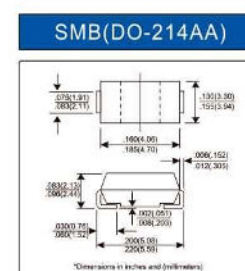
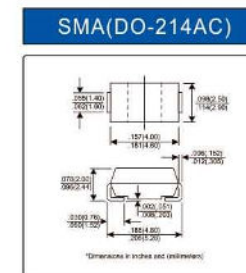
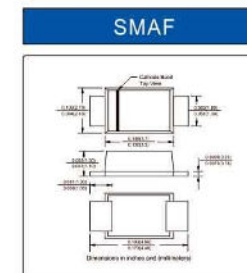
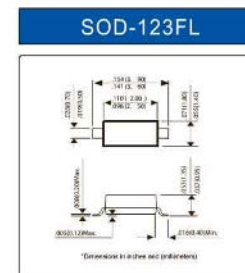
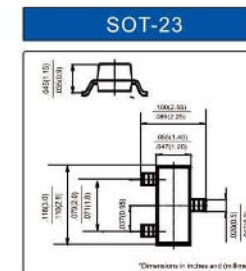
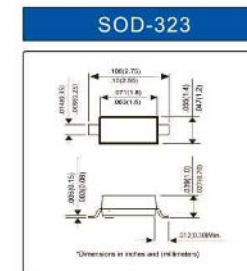
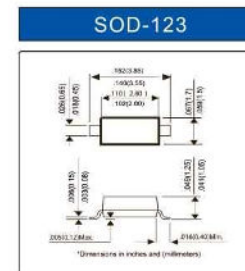
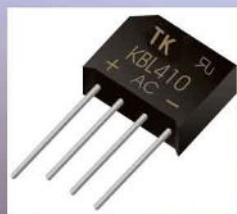
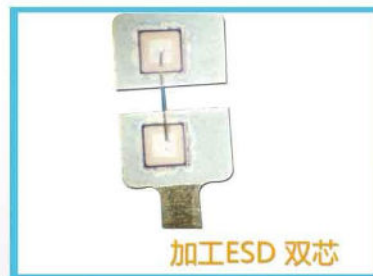
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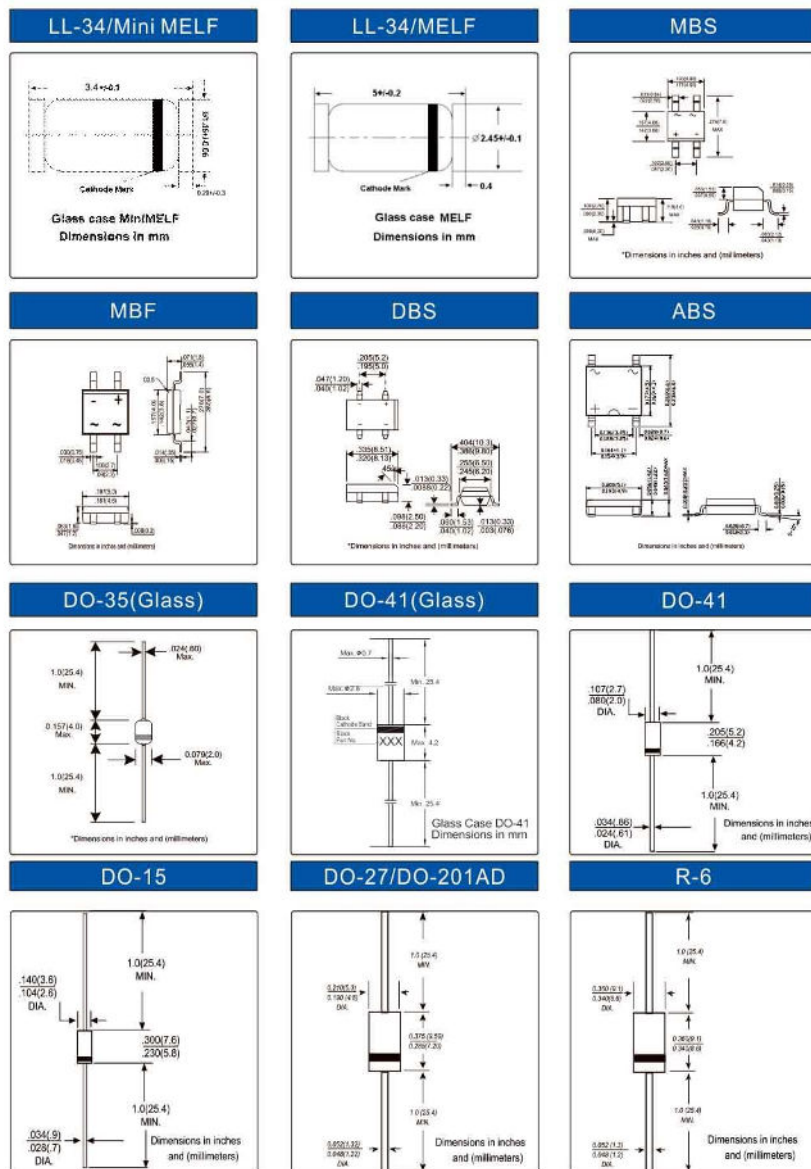
TO-220-3



TO-247



封装结构尺寸图
The size of the package structure diagram



通科制造，诚信可靠
可为客户量身订做二三极管制造商
manufacturer of custom diodes and transistors